

EXHIBIT 1

**UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF OHIO**

THE STATE OF OHIO, ex rel. DAVE YOST,
OHIO ATTORNEY GENERAL,

and

THE UNITED STATES OF AMERICA

Plaintiffs,

v.

NORFOLK SOUTHERN RAILWAY
COMPANY and NORFOLK SOUTHERN
CORPORATION,

Defendants/Third-
Party Plaintiffs,

v.

OXY VINYLs LP, GATX CORPORATION,
GENERAL AMERICAN MARKS
COMPANY, TRINITY INDUSTRIES
LEASING COMPANY, SMBC RAIL
SERVICES LLC, DOW CHEMICAL
INCORPORATED, and UNION TANK CAR
COMPANY,

Third-Party
Defendants.

Civ. Action No.: 4:23CV517
4:23CV675

Hon. John R. Adams

DECLARATION OF TIMOTHY J. COUGHLIN

I, Timothy J. Coughlin, declare under penalty of perjury as follows:

1. I am a partner in the law firm of Thompson Hine, LLP and represent Third-Party Defendant The Dow Chemical Company, incorrectly named as Dow Chemical Incorporated (“Dow”), in this matter.

2. I make this declaration in support of Dow's Motion to Dismiss Defendants/Third-Party Plaintiffs Norfolk Southern Railway Company's and Norfolk Southern Corporation's (collectively, "Norfolk Southern") Third-Party Complaint against it and accompany Memorandum.

3. I have personal knowledge of the facts set forth in this Declaration and could testify competently to them if called upon.

4. Attached hereto as Exhibit A is a true and correct copy of the United States Environmental Protection Agency's List of Lists: Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-To-Know Act (EPCRA), Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), and Section 112(r) of the Clean Air Act (CAA), publicly available at https://www.epa.gov/system/files/documents/2022-12/List_of_Lists_Compiled_December%202022.pdf, which I last visited on September 14, 2023.

5. Attached hereto as Exhibit B is a true and correct copy of the United States Environmental Protection Agency's Unilateral Administrative Order for Removal Actions, issued in *In the Matter of East Palestine Train Derailment Site*, CERCLA Docket No. V-W-23-C-004, on February 21, 2023, which Norfolk Southern specifically refers to in paragraphs 155 and 156 of its Third-Party Complaint.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct. Executed on this 15th day of September 2023.

s/ Timothy J. Coughlin
Timothy J. Coughlin

EXHIBIT A



**United States
Environmental Protection
Agency**

Office of Land
and
Emergency Management

EPA 550-B-22-001
December 2022
www.epa.gov/epcra

LIST OF LISTS

Consolidated List of Chemicals
Subject to the Emergency Planning and
Community Right-To-Know Act (EPCRA),
Comprehensive Environmental Response,
Compensation and Liability Act (CERCLA), and
Section 112(r) of the Clean Air Act (CAA)

- EPCRA Section 302 Extremely Hazardous Substances
 - CERCLA Hazardous Substances
 - EPCRA Section 313 Toxic Chemicals
 - CAA 112(r) Regulated Chemicals for Accidental Release Prevention
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INTRODUCTION

LIST OF LISTS

**Consolidated List of Chemicals Subject
the Emergency Planning and Community Right-to-Know Act (EPCRA),
Comprehensive Environmental Response, Compensation and Liability Act (CERCLA),
and Section 112(r) of the Clean Air Act (CAA)**

This consolidated chemical list includes chemicals subject to reporting requirements under the Emergency Planning and Community Right-to-Know Act (EPCRA), also known as Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA), the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), and section 112(r) of the Clean Air Act (CAA). This consolidated list does not include all hazardous chemicals subject to the reporting requirements in EPCRA sections 311 and 312, for which safety data sheets (SDS), formerly material safety data sheets (MSDS), must be developed under the Hazard Communication Standard (29 CFR 1910.1200). These hazardous chemicals are identified by broad criteria, rather than by enumeration. There are over 500,000 products that satisfy the criteria. See 40 CFR Part 370 for more information.

This consolidated list has been prepared to help facilities handling chemicals determine whether they need to submit reports under sections 302 and 313 of EPCRA and determine if releases of chemicals are reportable under section 102 and 103 of CERCLA and section 304 of EPCRA. It will also help facilities determine whether they will be subject to accident prevention regulations under CAA section 112(r). This document also includes waste stream codes for listed and unlisted hazardous wastes under the Resource Conservation and Recovery Act (RCRA), a list of radionuclides reportable under CERCLA, and the definitions or explanation of chemical categories listed under EPCRA section 313 and CERCLA.

***Note:** This document should be used only as a reference tool, not as a definitive source of compliance information. Reporting requirements for EPCRA are published in the Code of Federal Regulations (CFR), 40 CFR parts 355, 370, and 372. The list of EHS chemicals can be found at 40 CFR 355 Appendix A (alphabetical order) and Appendix B (CAS number order). The list of TRI chemicals can be found at 40 CFR 372.65. Reporting requirements for releases of CERCLA chemicals are in 40 CFR part 302, with list of CERCLA hazardous substances in 40 CFR 302.4. Regulatory requirements for accident prevention CAA section 112(r) are published in 40 CFR part 68 with the list of Risk Management Program chemicals in 40 CFR 68.130. The electronic CFR can be accessed at <https://www.ecfr.gov/cgi-bin/ECFR?page=browse>*

The chemicals on the consolidated list are ordered both by the Chemical Abstracts Service (CAS) registry number and alphabetically. Categories of chemicals which generally do not have CAS registry numbers, but which are cited under CERCLA, have "Not Applicable (N.A.)" listed in place of the CAS number. If the category of chemical is on EPCRA section 313 list, then the section 313 category code is also included in the CAS number column.

Introduction

This document lists chemicals referenced under five federal statutory provisions, discussed below. More than one chemical name may be listed for one CAS number because the same chemical may appear on different lists under different names. For example, for CAS number 8001-35-2, the names toxaphene (from the section 313 list), camphechlor (from the section 302 list), and camphene, octachloro- (from the CERCLA list) all appear on this consolidated list. The chemical names on the consolidated lists generally are those names used in the regulatory programs developed under EPCRA, CERCLA, and CAA section 112(r), but each chemical may have other synonyms that do not appear on these lists.

(1) EPCRA Section 302 Extremely Hazardous Substances (EHSs)

The presence of Extremely Hazardous Substances (EHSs) in quantities at or above the Threshold Planning Quantity (TPQ) requires certain emergency planning activities to be conducted. The EHSs and their TPQs are listed in 40 CFR part 355, Appendices A and B. For section 302 EHSs, Local and Tribal Emergency Planning Committees (LEPCs or TEPCs) must develop emergency response plans and facility owner or operator must notify the State or Tribal Emergency Response Commission (SERC or TERC) and their LEPC or TEPC if any of the EHS is present at the facility or above its TPQ. Additionally, if the TPQ is equaled or exceeded, facilities with a listed EHS are subject to the reporting requirements of EPCRA section 311 (provide safety data sheet or a list of covered chemicals to the SERC or TERC, LEPC or TEPC, and local fire department) and section 312 (submit inventory form -Tier I or Tier II). The minimum threshold for section 311-312 reporting for EHSs is 500 pounds or the TPQ, whichever is less.

TPQ. The consolidated list presents the TPQ (in pounds) for section 302 chemicals in the column following the CAS number. For chemicals that are solids, there are two TPQs given (e.g., 500/10,000). In these cases, the lower quantity applies for solids in powder form with particle size less than 100 microns, or if the substance is in solution or in molten form. Otherwise, the 10,000-pound TPQ applies. If a solid EHS is in molten form, the facility must multiply the amount of EHS on-site by 0.3 before comparing to the lower listed TPQ. If a solid EHS is in solution form, the facility must multiply amount EHS on-site by 0.2 before comparing to the lower listed TPQ. The reducing factors of 0.3 for molten solids and 0.2 for solids in solution are not to be used for the 12 solid reactive chemicals are noted by footnote "a" in Appendix A and B in 40 CFR part 355. These twelve chemicals are not listed with two TPQs and higher threshold quantity of 10,000 pounds; they only have one TPQ.

EHS RQ. Releases of reportable quantities (RQ) of EHSs are subject to State or Tribal and local reporting under section 304 of EPCRA. EPA has adjusted RQs for EHSs without CERCLA RQs to levels equal to their TPQs. The EHS RQ column lists these adjusted RQs for EHSs not listed under CERCLA and the CERCLA RQs for those EHSs that are CERCLA hazardous substances (see the next section for a discussion of CERCLA RQs).

Note: Ammonia is listed as an EPCRA EHS with an RQ of 100 pounds in 40 CFR part 355 Appendices A and B and covers both anhydrous and aqueous forms, unlike under CERCLA where aqueous ammonia is listed separately as ammonium hydroxide, with a higher RQ.

Introduction**(2) CERCLA Hazardous Substances**

Releases of CERCLA hazardous substances, in quantities equal to or greater than their reportable quantity (RQ), are subject to reporting to the National Response Center (NRC) under CERCLA. Notification requirements for these releases are found in 40 CFR 302. Such releases are also subject to State or Tribal and local reporting under section 304 of EPCRA. CERCLA hazardous substances, and their reportable quantities, are listed in 40 CFR part 302, Table 302.4. Radionuclides listed under CERCLA are provided in a separate list in Appendix B of this document, with RQs in Curies. Chemical categories under CERCLA (including metal compound categories), which have “N.A.” listed for the CAS Number in the consolidated table, are also listed in Appendix F of this document with further explanation of each chemical category, where information was available.

RQ. The CERCLA RQ column in the consolidated list shows the RQs (in pounds) for chemicals that are CERCLA hazardous substances.

Ammonia and ammonium hydroxide. Under 40 CFR 302.4, CERCLA Hazardous substances ammonia and ammonium hydroxide are listed separately, with RQs of 100 and 1,000 pounds, respectively. Ammonium hydroxide is an aqueous solution of ammonia.

Metals. For metals listed under CERCLA (antimony, arsenic, beryllium, cadmium, chromium, copper, lead, nickel, selenium, silver, thallium, and zinc), no reporting of releases of the solid form is required if the mean diameter of the pieces of the solid metal released is greater than 100 micrometers (0.004 inches) (Ref: Footnote after Table 302.4 in 40 CFR 302.4). The RQs shown on the consolidated list apply to smaller particles.

Note that the consolidated list does not include all CERCLA regulatory synonyms. See 40 CFR part 302, Table 302.4 for a complete list.

Sulfur monochloride. (formula S_2Cl_2) is listed with an incorrect CAS numbers of 12771-08-3, which is found on the CERCLA Hazardous Substances list. The correct CAS number should be 10025-67-9, however, the List of Lists will still include the CAS number of 12771-08-3 because it has not been changed on the CERCLA list. According to the Chemical Abstract Services which assigns CAS numbers, the correct CAS number for sulfur monochloride is 10025-67-9, which is now included on the List of Lists with an explanatory footnote.

CAS number 12771-08-3 is assigned to the substance sulfur chloride (formula SCl_2) which was listed as a synonym for sulfur monochloride when EPA finalized the Clean Water Act Designation of Hazardous Substances rule (43 FR 10474, March 13, 1978). The CAS number 10025-67-9 is used for sulfur monochloride on EPA's TSCA Inventory and EPA's Substance Registry Services lists. See

https://ofmpub.epa.gov/sor_internet/registry/substreg/LandingPage.do

Introduction**(3) CAA Section 112(r) List of Substances for Accidental Release Prevention**

Under the accident prevention provisions of section 112(r) of the CAA (also known as Risk Management Program or RMP), EPA developed a list of 77 toxic substances and 63 flammable substances. Threshold quantities (TQs) were established for these substances. The list and TQs identify processes subject to accident prevention regulations. The list of substances and TQs, and the requirements for risk management programs for accidental release prevention are found in 40 CFR part 68. This consolidated list includes both the common name for each listed chemical under section 112(r) and the chemical name, if different from the common name, as separate listings.

The CAA section 112(r) list includes several substances in solution that are covered only in concentrations above a specified level. These substances include ammonia (concentration 20% or greater) (CAS number 7664-41-7); hydrochloric acid (37% or greater) (CAS number 7647-01-0); hydrogen fluoride/hydrofluoric acid (50% or greater) (CAS number 7664-39-3); and nitric acid (80% or greater) (CAS number 7697-37-2). Hydrogen chloride (anhydrous) and ammonia (anhydrous) are listed, in addition to the solutions of these substances, with different TQs. Only the anhydrous form of sulfur dioxide (CAS number 7446-09-5) is covered. These substances are presented on the consolidated list with the concentration limit or specified form (e.g., anhydrous), as they are listed under CAA section 112(r). Flammable fuels used as a fuel or held for sale as a fuel at a retail facility are not subject to the rule.

TQ. The CAA section 112(r) TQ column in the consolidated list shows the TQs (in pounds) for chemicals listed for accidental release prevention. The TQ applies to the quantity of substance in a process, not at the facility as a whole.

(4) EPCRA Section 313 Toxic Chemicals (a.k.a Toxics Release Inventory (TRI) Chemicals)

Emissions, transfers, and waste management data for chemicals listed under section 313 must be reported annually as part of the community right-to-know provisions of EPCRA (40 CFR part 372). These reports are also known as Toxics Release Inventory (TRI) reports.

Section 313. The notation “313” in the column for section 313 indicates that the chemical is subject to reporting under section 313 and section 6607 of the Pollution Prevention Act under the name listed. In cases where a chemical is listed under section 313 with a second name in parentheses or brackets, the second name is included on this consolidated list with an “X” in the section 313 column. An “X” in this column also may indicate that the same chemical with the same CAS number appears on another list with a different chemical name. The “X” listed with the chemical name “Ammonia (anhydrous)” and “Ammonia (concentration of 20% or greater)” does not mean that the section 313 reporting for these substances are limited to those forms, but it does include them.

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Ammonium Salts. The EPCRA section 313 listing for ammonia includes the following qualifier “includes anhydrous ammonia and aqueous ammonia from water dissociable ammonium salts and other sources; 10 percent of total aqueous ammonia is reportable under this listing.” The qualifier for ammonia means that anhydrous forms of ammonia are 100% reportable and aqueous forms are limited to 10% of total aqueous ammonia. Therefore, when determining threshold and releases and other waste management quantities all anhydrous ammonia is included but only 10% of total aqueous ammonia is included. Any evaporation of ammonia from aqueous ammonia solutions is considered anhydrous ammonia and should be included in threshold determinations and release and other waste management calculations.

In this document ammonium salts are not specifically identified as being reportable EPCRA section 313 chemicals. However, water dissociable ammonia salts, such as ammonium chloride, are reportable if they are placed in water. When ammonium salts are placed in water, reportable aqueous ammonia is manufactured. As indicated in the ammonia qualifier, all aqueous ammonia solutions from water dissociable ammonium salts are covered by the ammonia listing. For example, ammonium chloride is a water-dissociable ammonium salt and reportable aqueous ammonia will be manufactured when it is placed in water.

Unlike other ammonium salts, ammonium hydroxide is specifically identified as being a reportable EPCRA section 313 chemical. This is because the chemical ammonium hydroxide (NH_4OH) is a misnomer. It is a common name used to describe a solution of ammonia in water (i.e., aqueous ammonia), typically a concentrated solution of 28 to 30 percent ammonia. EPA has consistently responded to questions regarding the reportability of these purported ammonium hydroxide solutions under the EPCRA section 313 ammonia listing by stating that these are 28 to 30 percent solutions of ammonia in water and that the solutions are reportable under the EPCRA section 313 ammonia listing. For a more detailed discussion, see page 34175 of the Federal Register final rule of June 30, 1995 (60 FR 34172) on TRI reporting for Ammonia; Ammonium Sulfate (solution); Ammonium Nitrate (solution); Water Dissociable Ammonium Salts, (See <https://www.federalregister.gov/documents/1995/06/30/95-16184/ammonia-ammonium-sulfate-solution-ammonium-nitrate-solution-water-dissociable-ammonium-salts-toxic>). (See also EPA’s TRI *Guidance for Reporting Aqueous Ammonia*, EPA 745-B-19-002, revised in February 2019 at https://ofmpub.epa.gov/apex/guideme_ext/f?p=guideme:gd-title:::::title:ammonia)

Stayed TRI Chemicals. There are two EPCRA section 313 chemicals that are listed in the CFR but for which the Agency has issued an administrative stay that excludes them from reporting until the stays are lifted. These chemicals, identified by “313s” in the Sec. 313 table column, are methyl mercaptan (CAS number 74-93-1), and 2, 2-dibromo-3-nitrilopropionamide (CAS number 10222-01-2). Check the TRI website <https://www.epa.gov/toxics-release-inventory-tri-program/tri-listed-chemicals> for updated regulatory information.

Introduction**New TRI Chemicals.**

National Defense Authorization Act Additions. Section 7321 of the National Defense Authorization Act for Fiscal Year 2020 (P.L. 116-92) (NDAA) added certain Per- and Polyfluoroalkyl Substances (PFAS) to the TRI list. Among these added chemicals are chemicals that met two criteria: (1) they were subject to a significant new use rule at either 40 CFR 721.9582 or 721.10536 on or before December 20, 2019; and (2) they were identified as active in commerce on the Toxic Substances Control Act (TSCA) Inventory that was published in February 2019. Chemicals meeting only one of the two criteria were not added to the TRI list.

The names and CAS numbers for some of the chemicals listed under 40 CFR 721.9582 and/or 40 CFR 721.10536 are subject to a claim of protection from disclosure. Under section 7321 of the NDAA, EPA must review any such chemicals before the chemicals are added to the TRI list (NDAA Section 7321(e)). Therefore, the chemicals that are subject to a claim of protection from disclosure will not be added to the EPCRA Section 313 toxic chemical list until EPA completes the process provided by section 7321(e) of the NDAA.

Via the considerations described above, 170 chemicals were identified. Additionally, the NDAA specifically identified fourteen PFAS for addition to the TRI list. Twelve of these fourteen chemicals were among the chemicals described above; with the addition of the other two, there are a total of 172 PFAS subject to the NDAA. See Appendix E of this document.

Under the automatic listing provisions of the 2020 NDAA, four additional PFAS were added for reporting year 2021. The four new PFAS are: Silver(I) perfluorooctanoate (CAS number 335-93-3), Perfluorooctyl iodide (CAS number 507-63-1), Potassium perfluorooctanoate (CAS number 2395-00-8), and 2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuorododecyl ester, polymer with 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafuorotetradecyl 2-methyl-2-propenoate and 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl 2-methyl-2-propenoate (CAS number 65104-45-2). Reporting forms on these chemicals are due July 1, 2022 for 2021 data if TRI reporting thresholds are met.

Under the automatic listing provisions of the 2020 NDAA, four additional PFAS were added for reporting year 2022. The four new PFAS are: Perfluorobutane sulfonic acid (CAS Number 375-73-5); Potassium perfluorobutane sulfonate (CAS Number 29420-49-3); Perfluorobutanesulfonate (CAS Number 45187-15-3), and 2-Propenoic acid, 2-methyl-, hexadecyl ester, polymers with 2-hydroxyethyl methacrylate, .gamma.-.omega.-perfluoro-C10-6-alkyl acrylate and stearyl methacrylate (CAS Number 203743-03-7).

Petition Additions. In response to a petition filed by the Toxics Use Reduction Institute, EPA added 12 chemicals to the EPCRA section 313 list (<https://www.govinfo.gov/content/pkg/FR-2022-11-30/pdf/2022-25946.pdf>). These 12 chemicals are reportable beginning with the 2023 reporting year (reports due July 1, 2024). In addition, EPA has classified one of the chemicals as a persistent, bioaccumulative, and toxic (PBT) chemical and designated it as a chemical of special concern with a 100-pound reporting threshold: 1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylcyclopenta[g]-2-benzopyran, or HHCB. The 12 chemicals are: Dibutyltin dichloride (CAS number 683-18-1); 1,3-Dichloro-2-propanol (CAS number 96-23-1); Formamide (CAS

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number 75-12-7); 1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylcyclopenta[g]-2-benzopyran (CAS number 1222-05-5); N-Hydroxyethylethylenediamine (CAS number 111-41-1); Nitrilotriacetic acid trisodium salt (CAS number 5064-31-3); p-(1,1,3,3-Tetramethylbutyl)phenol (CAS number 140-66-9); 1,2,3-Trichlorobenzene (CAS number 87-61-6); Triglycidyl isocyanurate (CAS number 2451-62-9); Tris(2-chloroethyl) phosphate (CAS number 115-96-8); Tris(1,3-dichloro-2-propyl) phosphate (CAS number 13674-87-8); and Tris(dimethylphenol) phosphate (CAS number 25155-23-1).

(5) Chemical Categories

The CERCLA and EPCRA section 313 lists include a number of chemical categories as well as specific chemicals. Categories appear on this consolidated list at the beginning of the CAS number order listing. The specific chemicals or substances that are included in the CERCLA category Radionuclides can be found in Appendix B. Appendix D contains explanations and definitions for the EPCRA section 313 (TRI) chemical categories. For the CERCLA listed categories reported with CAS number of N.A., Appendix F contains information available on the CERCLA chemical categories from their original statutory and regulatory sources.

Specific chemicals listed as members of the diisocyanates, dioxin and dioxin-like compounds, hexabromocyclododecane, nonylphenol, nonylphenol ethoxylates, and PAC categories under EPCRA section 313 are included in the list of specific chemicals by CAS number, not in the category listing.

EPA has attempted to identify those chemicals on the consolidated list that are clearly reportable under one or more of the EPCRA section 313 (TRI) chemical categories. For example, mercuric acetate (CAS number 1600-27-7), listed under section 302, is not specifically listed under section 313, but is reportable under the section 313 “Mercury Compounds” category (no CAS number). Listed chemicals that have been identified as being reportable under one or more EPCRA section 313 categories are identified by “313c” in the Sec. 313 table column.

The chemicals on the consolidated list have not been systematically evaluated to determine whether they fall into any of the CERCLA listed categories. Some chemicals not specifically listed under CERCLA may be subject to CERCLA reporting as part of a category. For example, strychnine sulfate (CAS number 60-41-3), listed under EPCRA section 302, is not individually listed on the CERCLA list, but is subject to CERCLA reporting under the listing for strychnine and salts (CAS number 57-24-9), with an RQ of 10 pounds. Similarly, nicotine sulfate (CAS number 65-30-5) is subject to CERCLA reporting under the listing for nicotine and salts (CAS number 54-11-5, RQ 100 pounds), and warfarin sodium (CAS number 129-06-6) is subject to CERCLA reporting under the listing for warfarin and salts, concentration >0.3% (CAS number 81-81-2, RQ 100 pounds).

Note that some CERCLA listings, although they include CAS numbers, are for general categories and are not restricted to the specific CAS number (e.g., warfarin and salts). The CERCLA list also includes a number of generic categories that have not been assigned RQs; chemicals falling into these categories are considered CERCLA hazardous substances, but they are not required to be reported under CERCLA unless otherwise listed under CERCLA with an RQ.

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(6) RCRA Hazardous Wastes

The consolidated list includes specific chemicals from the RCRA P and U lists only (40 CFR 261.33). This listing is provided as an indicator that companies may already have data on a specific chemical that may be useful for EPCRA reporting. It is not intended to be a comprehensive list of RCRA P and U chemicals. RCRA hazardous wastes consisting of waste streams on the F and K lists, and wastes exhibiting the characteristics of ignitability, corrosivity, reactivity, and toxicity, are provided in Appendix C in this document. This list also includes K181 hazardous waste with a statutory one-pound RQ (indicated by an asterisk “*” following the RQ). The descriptions of the F and K waste streams have been abbreviated; see 40 CFR part 302, Table 302.4, or 40 CFR part 261 for complete descriptions.

RCRA Code. The letter-and-digit code in the RCRA Code column is the chemical's RCRA hazardous waste code.

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SUMMARY OF CODES

Codes in Section 313 column

- + Member of EPCRA Section 313 PAC category.
- # Member of EPCRA Section 313 Diisocyanate category.
- c Although not listed by name and CAS number, this chemical is reportable under one or more of the EPCRA section 313 chemical categories.
- s Indicates that this chemical is currently under an administrative stay of the EPCRA section 313 reporting requirements, therefore, no Toxics Release Inventory reports are required until the stay is removed.
- ! Member of the EPCRA section 313 Dioxin and dioxin-like compounds category.
- X Indicates that this is a second name for an EPCRA section 313 chemical already included on this consolidated list. May also indicate that the same chemical with the same CAS number appears on another list with a different chemical name.
- \$ Member of the EPCRA section 313 Nonylphenol category.
- ^ Member of the EPCRA section 313 Hexabromocyclododecane category.
- % Member of the EPCRA section 313 Nonylphenol Ethoxylates category.

Codes in CERCLA RQ column

- * The Agency may adjust the statutory RQ for this RCRA hazardous substance (K181 waste) in a future rulemaking; until then the statutory one-pound RQ applies. K codes wastes are listed in Appendix C.
- PMN This EHS chemical was identified from a Premanufacture Review Notice (PMN) submitted to EPA. The submitter has claimed certain information on the submission to be confidential, including specific chemical identity.
- & Indicates that no RQ is assigned to this generic or broad class, although the class is a CERCLA hazardous substance. See 50 Federal Register 13456 (April 4, 1985).
- @ Releases in amounts less than 1,000 pounds per 24 hours of nitrogen oxide or nitrogen dioxide to the air that are the result of combustion and combustion related activities are exempt from the notification requirements of EPCRA section 304 and CERCLA.
- § The adjusted RQs for radionuclides may be found in appendix B in this document.

Codes in Name column

- 1 Sulfur monochloride (formula S_2Cl_2) is listed with an incorrect CAS number of 12771 08 3, which is found on the CERCLA Hazardous Substances list. The correct CAS number should be 10025-67-9 according to the Chemical Abstract Services. However, the List of Lists has sulfur monochloride with both CAS numbers because CAS number 12771-08-3 has not been changed on the CERCLA list.
- †† No reporting of releases of this CERCLA hazardous substance is required under CERCLA if the diameter of the pieces of the solid metal released is larger than 100 micrometers (0.004 inches).
- ††† The RQ for asbestos is limited to friable forms only.
- a Benzene was already a CERCLA hazardous substance prior to the CAA Amendments of 1990 and received an adjusted 10-pound RQ based on potential carcinogenicity in an August 14, 1989, final rule (54 FR 33418). The CAA Amendments specify that “benzene (including benzene from gasoline)” is a hazardous air pollutant and, thus, a CERCLA hazardous substance.
- b The CAA Amendments of 1990 list DDE (CAS number 3547-04-4) as a CAA hazardous air pollutant (HAP). The CAS number, 3547-04-4, is for the chemical, p, p'-dichlorodiphenylethane. DDE or p, p'- dichlorodiphenyldichloroethylene, CAS number 72-55-9, is already listed in Table 302.4 with a final RQ of 1 pound. The substance identified by the CAS number 3547-04-4 has been evaluated and listed as DDE to be consistent with the CAA section 112 listing, as amended.
- c Includes mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag fibers (or other mineral derived fibers) of average diameter 1 micrometer or less.
- d For CERCLA hazardous substances, includes mono- and di-ethers of ethylene glycol, diethylene glycol, and triethylene glycol $R-(OCH_2CH_2)_n-OR'$ where:
- n = 1, 2, or 3;
- R = alkyl C7 or less; or
- R = phenyl or alkyl substituted phenyl;
- R' = H or alkyl C7 or less; or
- OR' consisting of carboxylic acid ester, sulfate, phosphate, nitrate, or sulfonate.
- Note:** the phrase “mono- and di-ethers of ethylene glycol, diethylene glycol, and triethylene glycol” is not included the TRI definition, but the defined formula is the same for the CERCLA and TRI listing and by formula definition would cover “mono- and di-ethers of ethylene glycol, diethylene glycol, and triethylene glycol.”
- e Includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100 °C.

Code in RCRA Waste Stream Codes

- f See 40 CFR 302.6(b)(1) for application of the mixture rule to this hazardous waste. See Appendix C for listing of “K” code RCRA waste streams.

Consolidated List of Chemicals by CAS Number[Top](#)**Consolidated List of Chemicals
(By CAS Number)****SUBJECT TO EPCRA, CERCLA, AND CAA SECTION 112(r)**

NAME	CAS/313 Category Codes	Section 302 (EHS) TPQ	Section 304 EHS RQ	CERCLA RQ	Section 313	RCRA CODE	CAA 112(r) TQ
Chlorinated Benzenes	N.A.			&			
Chlorinated Ethanes	N.A.			&			
Chlorinated Naphthalene	N.A.			&			
Chloroalkyl Ethers	N.A.			&			
Coke Oven Emissions	N.A.			1			
Creosote	N.A.			1		U051	
Cyanides (soluble salts and complexes), not otherwise specified	N.A.			10	313c	P030	
DDT and Metabolites	N.A.			&			
Endosulfan and Metabolites	N.A.			&			
Endrin and Metabolites	N.A.			&			
Fine mineral fibers ^c	N.A.			&			
Haloethers	N.A.			&			
Halomethanes	N.A.			&			
Heptachlor and Metabolites	N.A.			&			
Nitrosamines	N.A.			&			
Phthalate Esters	N.A.			&			
Polycyclic organic matter	N.A.			&			
Polynuclear Aromatic Hydrocarbons	N.A.			&			
Radionuclides (including Radon)	N.A.			§			
Antimony Compounds	N010			&	313		
Arsenic Compounds	N020			&	313		
Barium Compounds	N040				313		
Beryllium Compounds	N050			&	313		
Cadmium Compounds	N078			&	313		
Chlorinated Phenols	N084			&	313		
Chlorophenols	N084			&	313		
Chromium Compounds	N090			&	313		
Cobalt Compounds	N096			&	313		
Copper Compounds	N100			&	313		
Cyanide Compounds	N106			&	313		
Diisocyanates (includes only 20 chemicals)	N120				313		
Dioxin and dioxin-like compounds (includes only 17 chemicals)	N150				313		
Ethylenebisdithiocarbamic acid, salts and esters	N171				313		
Glycol Ethers ^d	N230			&	313		
Hexabromocyclododecane	N270				313 [^]		
Lead Compounds	N420			&	313		

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Manganese Compounds	N450			&	313		
Mercury Compounds	N458			&	313		
Nickel Compounds	N495			&	313		
Nicotine and salts	N503				313		
Nitrate compounds (water dissociable)	N511				313		
Nonylphenol (includes only 6 chemicals)	N530				313		
Nonylphenol Ethoxylates	N535				313%		
Polybrominated Biphenyls (PBBs)	N575				313		
Polychlorinated alkanes (C10 to C13)	N583				313		
Polycyclic aromatic compounds ^e (includes only 23 chemicals)	N590				313		
Selenium Compounds	N725			&	313		
Silver Compounds	N740			&	313		
Strychnine and salts	N746				313		
Thallium Compounds	N760			&	313		
Vanadium Compounds	N770				313		
Warfarin and salts	N874				313		
Zinc Compounds	N982			&	313		
Organorhodium Complex (PMN-82-147)	0	10/10,000	10	PMN			
Formaldehyde	50-00-0	500	100	100	313	U122	15,000
Formaldehyde (solution)	50-00-0	500	100	100	X	U122	15,000
Mitomycin C	50-07-7	500/10,000	10	10		U010	
Ergocalciferol	50-14-6	1,000/10,000	1,000				
Cyclophosphamide	50-18-0			10		U058	
DDT	50-29-3			1		U061	
Benzo[a]pyrene	50-32-8			1	313+	U022	
Reserpine	50-55-5			5,000		U200	
Yohimban-16-carboxylic acid,11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-, methyl ester (3beta, 16beta, 17alpha, 18beta, 20alpha)-	50-55-5			5,000		U200	
Piperonyl butoxide	51-03-6				313		
Fluorouracil	51-21-8	500/10,000	500		313		
5-Fluorouracil	51-21-8	500/10,000	500		X		
2,4-Dinitrophenol	51-28-5			10	313	P048	
Epinephrine	51-43-4			1,000		P042	
2-Chloro-N-(2-chloroethyl)-N-methylethanamine	51-75-2	10	10		X		
Mechlorethamine	51-75-2	10	10		X		
Nitrogen mustard	51-75-2	10	10		313		
Carbamic acid, ethyl ester	51-79-6			100	X	U238	
Ethyl carbamate	51-79-6			100	X	U238	
Urethane	51-79-6			100	313	U238	
Carbachol chloride	51-83-2	500/10,000	500				

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Phosphonic acid, (2,2,2-trichloro-1-hydroxyethyl)-,dimethyl ester	52-68-6			100	X		
Trichlorfon	52-68-6			100	313		
Famphur	52-85-7			1,000	313	P097	
Dibenz[a,h]anthracene	53-70-3			1	313+	U063	
2-Acetylaminofluorene	53-96-3			1	313	U005	
Nicotine	54-11-5	100	100	100	313c	P075	
Nicotine and salts	54-11-5			100	313c	P075	
Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)-, & salts	54-11-5	100	100	100	313c	P075	
Aminopterin	54-62-6	500/10,000	500				
N-Nitrosodiethylamine	55-18-5			1	313	U174	
Benzamide	55-21-0				313		
Fenthion	55-38-9				313		
Nitroglycerin	55-63-0			10	313	P081	
Diisopropylfluorophosphate	55-91-4	100	100	100		P043	
Isofluorophate	55-91-4	100	100	100		P043	
Methylthiouracil	56-04-2			10		U164	
Carbon tetrachloride	56-23-5			10	313	U211	
Cantharidin	56-25-7	100/10,000	100				
Bis(tributyltin) oxide	56-35-9				313		
Parathion	56-38-2	100	10	10	313	P089	
Phosphorothioic acid, O,O-diethyl-O-(4-nitrophenyl) ester	56-38-2	100	10	10	X	P089	
3-Methylcholanthrene	56-49-5			10	313+	U157	
Diethylstilbestrol	56-53-1			1		U089	
Benz[a]anthracene	56-55-3			10	313+	U018	
Coumaphos	56-72-4	100/10,000	10	10			
1,1-Dimethylhydrazine	57-14-7	1,000	10	10	313	U098	15,000
Dimethylhydrazine	57-14-7	1,000	10	10	X	U098	15,000
Hydrazine, 1,1-dimethyl-	57-14-7	1,000	10	10	X	U098	15,000
Strychnine	57-24-9	100/10,000	10	10	313c	P108	
Strychnine, and salts	57-24-9			10	313c	P108	
Pentobarbital sodium	57-33-0				313		
Phenytoin	57-41-0				313		
Physostigmine	57-47-6	100/10,000	100	100		P204	
beta-Propiolactone	57-57-8	500	10	10	313		
Physostigmine, salicylate (1:1)	57-64-7	100/10,000	100	100		P188	
Chlordane (Technical Mixture and Metabolites)	57-74-9			1		U036	
Chlordane	57-74-9	1,000	1	1	313	U036	
4,7-Methanoindan, 1,2,3,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-7,12-Dimethylbenz[a]anthracene	57-74-9	1,000	1	1	X	U036	
Phenoxarsine, 10,10'-oxydi-	57-97-6			1	313+	U094	
Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1.alpha.,2.alpha.,3.beta.,4.alpha.,5.alpha.,6.beta.)-	58-36-6	500/10,000	500		313c		
	58-89-9	1,000/10,000	1	1	X	U129	

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Hexachlorocyclohexane (gamma isomer)	58-89-9	1,000/10,000	1	1	X	U129	
Lindane	58-89-9	1,000/10,000	1	1	313	U129	
2,3,4,6-Tetrachlorophenol	58-90-2			10	313c		
p-Chloro-m-cresol	59-50-7			5,000		U039	
Phenylhydrazine hydrochloride	59-88-1	1,000/10,000	1,000				
N-Nitrosomorpholine	59-89-2			1	313		
Ethylenediamine-tetraacetic acid (EDTA)	60-00-4			5,000			
4-Aminoazobenzene	60-09-3				313		
4-Dimethylaminoazobenzene	60-11-7			10	313	U093	
Dimethylaminoazobenzene	60-11-7			10	X	U093	
Ethane, 1,1'-oxybis-	60-29-7			100		U117	10,000
Ethyl ether	60-29-7			100		U117	10,000
Hydrazine, methyl-	60-34-4	500	10	10	X	P068	15,000
Methyl hydrazine	60-34-4	500	10	10	313	P068	15,000
Acetamide	60-35-5			100	313		
Strychnine, sulfate	60-41-3	100/10,000	10	10	313c		
Dimethoate	60-51-5	500/10,000	10	10	313	P044	
Dieldrin	60-57-1			1		P037	
Amitrole	61-82-5			10	313	U011	
Phenylmercuric acetate	62-38-4	500/10,000	100	100	313c	P092	
Phenylmercury acetate	62-38-4	500/10,000	100	100	313c	P092	
Phenacetin	62-44-2			100		U187	
Ethyl methanesulfonate	62-50-0			1		U119	
Aniline	62-53-3	1,000	5,000	5,000	313	U012	
Thioacetamide	62-55-5			10	313	U218	
Thiourea	62-56-6			10	313	U219	
Dichlorvos	62-73-7	1,000	10	10	313		
Phosphoric acid, 2-dichloroethenyl dimethyl ester	62-73-7	1,000	10	10	X		
Fluoroacetic acid, sodium salt	62-74-8	10/10,000	10	10	X	P058	
Sodium fluoroacetate	62-74-8	10/10,000	10	10	313	P058	
Methanamine, N-methyl-N-nitroso-	62-75-9	1,000	10	10	X	P082	
N-Nitrosodimethylamine	62-75-9	1,000	10	10	313	P082	
Nitrosodimethylamine	62-75-9	1,000	10	10	X	P082	
Carbaryl	63-25-2			100	313	U279	
1-Naphthalenol, methylcarbamate	63-25-2			100	X	U279	
Phenol, 3-(1-methylethyl)-, methylcarbamate	64-00-6	500/10,000	10	10		P202	
Formic acid	64-18-6			5,000	313	U123	
Acetic acid	64-19-7			5,000			
Diethyl sulfate	64-67-5			10	313		
Tetracycline hydrochloride	64-75-5				313		
Colchicine	64-86-8	10/10,000	10				
Nicotine sulfate	65-30-5	100/10,000	100	100	313c		
Benzoic acid	65-85-0			5,000			

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NAME	CAS/313 Category Codes	Section 302 (EHS) TPQ	Section 304 EHS RQ	CERCLA RQ	Section 313	RCRA CODE	CAA 112(r) TQ
Uracil mustard	66-75-1			10		U237	
Cycloheximide	66-81-9	100/10,000	100				
Methanol	67-56-1			5,000	313	U154	
Isopropyl alcohol (mfg-strong acid process)	67-63-0				313		
Acetone	67-64-1			5,000		U002	
Chloroform	67-66-3	10,000	10	10	313	U044	20,000
Methane, trichloro-	67-66-3	10,000	10	10	X	U044	20,000
Hexachloroethane	67-72-1			100	313	U131	
Dimethylformamide	68-12-2			100	X		
N,N-Dimethylformamide	68-12-2			100	313		
Triaziquone	68-76-8				313		
Guanidine, N-methyl-N'-nitro-N-nitroso-	70-25-7			10		U163	
Hexachlorophene	70-30-4			100	313	U132	
Propiophenone, 4'-amino	70-69-9	100/10,000	100				
n-Butyl alcohol	71-36-3			5,000	313	U031	
Benzene ^a	71-43-2			10	313	U019	
Methyl chloroform	71-55-6			1,000	X	U226	
1,1,1-Trichloroethane	71-55-6			1,000	313	U226	
Digitoxin	71-63-6	100/10,000	100				
Endrin	72-20-8	500/10,000	1	1		P051	
Benzene, 1,1'-(2,2,2- trichloroethylidene)bis [4-methoxy- Methoxychlor	72-43-5			1	X	U247	
DDD	72-54-8			1	313	U247	
DDE ^b	72-55-9			1		U060	
Trypan blue	72-57-1			10	313	U236	
Methane	74-82-8						10,000
Bromomethane	74-83-9	1,000	1,000	1,000	313	U029	
Methyl bromide	74-83-9	1,000	1,000	1,000	X	U029	
Ethane	74-84-0						10,000
Ethene	74-85-1				X		10,000
Ethylene	74-85-1				313		10,000
Acetylene	74-86-2						10,000
Ethyne	74-86-2						10,000
Chloromethane	74-87-3			100	313	U045	10,000
Methane, chloro-	74-87-3			100	X	U045	10,000
Methyl chloride	74-87-3			100	X	U045	10,000
Methyl iodide	74-88-4			100	313	U138	
Methanamine	74-89-5			100			10,000
Monomethylamine	74-89-5			100			10,000
Hydrocyanic acid	74-90-8	100	10	10	X	P063	2,500
Hydrogen cyanide	74-90-8	100	10	10	313	P063	2,500
Methanethiol	74-93-1	500	100	100	X	U153	10,000
Methyl mercaptan	74-93-1	500	100	100	313s	U153	10,000
Thiomethanol	74-93-1	500	100	100	X	U153	10,000
Methylene bromide	74-95-3			1,000	313	U068	

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Propane	74-98-6						10,000
1-Propyne	74-99-7						10,000
Propyne	74-99-7						10,000
Chloroethane	75-00-3			100	313		10,000
Ethane, chloro-	75-00-3			100	X		10,000
Ethyl chloride	75-00-3			100	X		10,000
Ethene, chloro-	75-01-4			1	X	U043	10,000
Vinyl chloride	75-01-4			1	313	U043	10,000
Ethene, fluoro-	75-02-5						10,000
Vinyl fluoride	75-02-5				313		10,000
Ethanamine	75-04-7			100			10,000
Monoethylamine	75-04-7			100			10,000
Acetonitrile	75-05-8			5,000	313	U003	
Acetaldehyde	75-07-0			1,000	313	U001	10,000
Ethanethiol	75-08-1						10,000
Ethyl mercaptan	75-08-1						10,000
Dichloromethane	75-09-2			1,000	313	U080	
Methylene chloride	75-09-2			1,000	X	U080	
Formamide	75-12-7				313		
Carbon disulfide	75-15-0	10,000	100	100	313	P022	20,000
Cyclopropane	75-19-4						10,000
Calcium carbide	75-20-7			10			
Ethylene oxide	75-21-8	1,000	10	10	313	U115	10,000
Oxirane	75-21-8	1,000	10	10	X	U115	10,000
Bromoform	75-25-2			100	313	U225	
Tribromomethane	75-25-2			100	X	U225	
Dichlorobromomethane	75-27-4			5,000	313		
Isobutane	75-28-5						10,000
Propane, 2-methyl	75-28-5						10,000
Isopropyl chloride	75-29-6						10,000
Propane, 2-chloro-	75-29-6						10,000
Isopropylamine	75-31-0						10,000
2-Propanamine	75-31-0						10,000
1,1-Dichloroethane	75-34-3			1,000	X	U076	
Ethylidene dichloride	75-34-3			1,000	313	U076	
1,1-Dichloroethylene	75-35-4			100	X	U078	10,000
Ethene, 1,1-dichloro-	75-35-4			100	X	U078	10,000
Vinylidene chloride	75-35-4			100	313	U078	10,000
Acetyl chloride	75-36-5			5,000		U006	
Difluoroethane	75-37-6						10,000
Ethane, 1,1-difluoro-	75-37-6						10,000
Ethene, 1,1-difluoro-	75-38-7						10,000
Vinylidene fluoride	75-38-7						10,000
Dichlorofluoromethane	75-43-4				313		
HCFC-21	75-43-4				X		
Carbonic dichloride	75-44-5	10	10	10	X	P095	500
Phosgene	75-44-5	10	10	10	313	P095	500

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Chlorodifluoromethane	75-45-6				313		
HCFC-22	75-45-6				X		
Methanamine, N,N-dimethyl-	75-50-3			100			10,000
Trimethylamine	75-50-3			100			10,000
Nitromethane	75-52-5				313		
Aziridine, 2-methyl	75-55-8	10,000	1	1	X	P067	10,000
Propyleneimine	75-55-8	10,000	1	1	313	P067	10,000
Oxirane, methyl-	75-56-9	10,000	100	100	X		10,000
Propylene oxide	75-56-9	10,000	100	100	313		10,000
Cacodylic acid	75-60-5			1		U136	
Bromotrifluoromethane	75-63-8				313		
Halon 1301	75-63-8				X		
tert-Butylamine	75-64-9			1,000			
tert-Butyl alcohol	75-65-0				313		
1-Chloro-1,1-difluoroethane	75-68-3				313		
HCFC-142b	75-68-3				X		
CFC-11	75-69-4			5,000	X	U121	
Trichlorofluoromethane	75-69-4			5,000	313	U121	
Trichloromonofluoromethane	75-69-4			5,000	X	U121	
CFC-12	75-71-8			5,000	X	U075	
Dichlorodifluoromethane	75-71-8			5,000	313	U075	
CFC-13	75-72-9				X		
Chlorotrifluoromethane	75-72-9				313		
Plumbane, tetramethyl-	75-74-1	100	100				10,000
Tetramethyllead	75-74-1	100	100		313c		10,000
Silane, tetramethyl-	75-76-3						10,000
Tetramethylsilane	75-76-3						10,000
Silane, chlorotrimethyl-	75-77-4	1,000	1,000				10,000
Trimethylchlorosilane	75-77-4	1,000	1,000				10,000
Dimethyldichlorosilane	75-78-5	500	500				5,000
Silane, dichlorodimethyl-	75-78-5	500	500				5,000
Methyltrichlorosilane	75-79-6	500	500				5,000
Silane, trichloromethyl-	75-79-6	500	500				5,000
Acetone cyanohydrin	75-86-5	1,000	10	10	X	P069	
2-Methylactonitrile	75-86-5	1,000	10	10	313	P069	
Acetaldehyde, trichloro-	75-87-6			5,000		U034	
2-Chloro-1,1,1-trifluoroethane	75-88-7				313		
HCFC-133a	75-88-7				X		
2,2-Dichloropropionic acid	75-99-0			5,000			
Pentachloroethane	76-01-7			10	313	U184	
Trichloroacetyl chloride	76-02-8	500	500		313		
Chloropicrin	76-06-2				313		
Freon 113	76-13-1				313		
CFC-114	76-14-2				X		
Dichlorotetrafluoroethane	76-14-2				313		
CFC-115	76-15-3				X		
Monochloropentafluoroethane	76-15-3				313		

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Heptachlor	76-44-8			1	313	P059	
1,4,5,6,7,8,8-Heptachloro-3a,4,7,7a-tetrahydro-4,7-methano-1H-indene	76-44-8			1	X	P059	
Triphenyltin hydroxide	76-87-9				313		
Phenolphthalein	77-09-8				313		
Hexachlorocyclopentadiene	77-47-4	100	10	10	313	U130	
Dicyclopentadiene	77-73-6				313		
Dimethyl sulfate	77-78-1	500	100	100	313	U103	
Tabun	77-81-6	10	10				
Tetraethyl lead	78-00-2	100	10	10	313c	P110	
Dioxathion	78-34-2	500	500				
S,S,S-Tributyltrithiophosphate	78-48-8				313		
Amiton	78-53-5	500	500				
Isophorone	78-59-1			5,000			
Oxetane, 3,3-bis(chloromethyl)-	78-71-7	500	500				
Butane, 2-methyl-	78-78-4						10,000
Isopentane	78-78-4						10,000
1,3-Butadiene, 2-methyl-	78-79-5			100			10,000
Isoprene	78-79-5			100	313		10,000
iso-Butylamine	78-81-9			1,000			
Isobutyronitrile	78-82-0	1,000	1,000				20,000
Propanenitrile, 2-methyl-	78-82-0	1,000	1,000				20,000
Isobutyl alcohol	78-83-1			5,000		U140	
Isobutyraldehyde	78-84-2				313		
1,2-Dichloropropane	78-87-5			1,000	313	U083	
Propane 1,2-dichloro-	78-87-5			1,000	X	U083	
2,3-Dichloropropene	78-88-6			100	313		
sec-Butyl alcohol	78-92-2				313		
Methyl ethyl ketone	78-93-3			5,000		U159	
Methyl vinyl ketone	78-94-4	10	10				
Lactonitrile	78-97-7	1,000	1,000				
1,1-Dichloropropane	78-99-9			1,000			
1,1,2-Trichloroethane	79-00-5			100	313	U227	
Trichloroethylene	79-01-6			100	313	U228	
Acrylamide	79-06-1	1,000/10,000	5,000	5,000	313	U007	
Propionic acid	79-09-4			5,000			
Acrylic acid	79-10-7			5,000	313	U008	
Chloroacetic acid	79-11-8	100/10,000	100	100	313		
Thiosemicarbazide	79-19-6	100/10,000	100	100	313	P116	
Ethaneperoxoic acid	79-21-0	500	500		X		10,000
Peracetic acid	79-21-0	500	500		313		10,000
Carbonochloridic acid, methylester	79-22-1	500	1,000	1,000	X	U156	5,000
Methyl chlorocarbonate	79-22-1	500	1,000	1,000	313	U156	5,000
Methyl chloroformate	79-22-1	500	1,000	1,000	X	U156	5,000
iso-Butyric acid	79-31-2			5,000			
1,1,2,2-Tetrachloroethane	79-34-5			100	313	U209	
Ethene, chlorotrifluoro-	79-38-9						10,000

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Trifluorochloroethylene	79-38-9						10,000
Dimethylcarbamoyl chloride	79-44-7			1	313	U097	
2-Nitropropane	79-46-9			10	313	U171	
Tetrabromobisphenol A	79-94-7				313		
4,4'-Isopropylidenediphenol	80-05-7				313		
Cumene hydroperoxide	80-15-9			10	313	U096	
Hydroperoxide, 1-methyl-1-phenylethyl-	80-15-9			10	X	U096	
Methyl methacrylate	80-62-6			1,000	313	U162	
Methyl 2-chloroacrylate	80-63-7	500	500				
Saccharin (manufacturing)	81-07-2			100	313	U202	
Saccharin and salts	81-07-2			100		U202	
1-Amino-2,4-dibromoanthraquinone	81-49-2				313		
Warfarin	81-81-2	500/10,000	100	100	X 313c	P001	
Warfarin, & salts, conc.>0.3%	81-81-2			100	X 313c	P001	
C.I. Food Red 15	81-88-9				313		
1-Amino-2-methylantraquinone	82-28-0				313		
Diphacinone	82-66-6	10/10,000	10				
PCNB	82-68-8			100	X	U185	
Pentachloronitrobenzene	82-68-8			1 00	X	U185	
Quintozone	82-68-8			100	313	U185	
Acenaphthene	83-32-9			100			
Diethyl phthalate	84-66-2			1,000		U088	
n-Butyl phthalate	84-74-2			10	X	U069	
Dibutyl phthalate	84-74-2			10	313	U069	
Diquat	85-00-7			1,000			
Phenanthrene	85-01-8			5,000	313		
Phthalic anhydride	85-44-9			5,000	313	U190	
Butyl benzyl phthalate	85-68-7			100			
N-Nitrosodiphenylamine	86-30-6			100	313		
Azinphos-methyl	86-50-0	10/10,000	1	1			
Guthion	86-50-0	10/10,000	1	1			
Fluorene	86-73-7			5,000			
ANTU	86-88-4	500/10,000	100	100		P072	
Thiourea, 1-naphthalenyl-	86-88-4	500/10,000	100	100		P072	
1,2,3-Trichlorobenzene	87-61-6				313		
2,6-Xylidine	87-62-7				313		
2,6-Dichlorophenol	87-65-0			100		U082	
Hexachloro-1,3-butadiene	87-68-3			1	313	U128	
Hexachlorobutadiene	87-68-3			1	X	U128	
PCP	87-86-5			10	X		
Pentachlorophenol	87-86-5			10	313		
Aniline, 2,4,6-trimethyl-	88-05-1	500	500				
2,4,6-Trichlorophenol	88-06-2			10	313		
o-Nitrotoluene	88-72-2			1,000	313		
2-Nitrophenol	88-75-5			100	313		
Dinitrobutyl phenol	88-85-7	100/10,000	1,000	1,000	313	P020	
Dinoseb	88-85-7	100/10,000	1,000	1,000	X	P020	

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Picric acid	88-89-1				313		
o-Anisidine	90-04-0			100	313		
2-Phenylphenol	90-43-7				313		
Michler's ketone	90-94-8				313		
Benzene, 1,3-diisocyanato-2-methyl-	91-08-7	100	100	100	X		10,000
Toluene-2,6-diisocyanate	91-08-7	100	100	100	313		10,000
Naphthalene	91-20-3			100	313	U165	
Quinoline	91-22-5			5,000	313		
o-Nitroanisole	91-23-6				313		
2-Chloronaphthalene	91-58-7			5,000		U047	
beta-Naphthylamine	91-59-8			10	313	U168	
N,N-Diethylaniline	91-66-7			1,000			
Methapyrilene	91-80-5			5,000		U155	
3,3'-Dimethoxybenzidine-4,4'- diisocyanate	91-93-0				313#		
3,3'-Dichlorobenzidine	91-94-1			1	313	U073	
3,3'-Dimethyl-4,4'-diphenylene diisocyanate	91-97-4				313#		
Biphenyl	92-52-4			100	313		
4-Aminobiphenyl	92-67-1			1	313		
Benzidine	92-87-5			1	313	U021	
4-Nitrobiphenyl	92-93-3			10	313		
Methyleugenol	93-15-2				313		
Mecoprop	93-65-2				313		
Silvex (2,4,5-TP)	93-72-1			100			
2,4,5-T acid	93-76-5			1,000			
2,4,5-T esters	93-79-8			1,000			
2,4-D Esters	94-11-1			100	X		
2,4-D isopropyl ester	94-11-1			100	313		
Benzoyl peroxide	94-36-0				313		
Dihydrosafrole	94-58-6			10	313	U090	
Safrole	94-59-7			100	313	U203	
MCPA	94-74-6				X		
Methoxone	94-74-6				313		
Acetic acid, (2,4-dichlorophenoxy)-	94-75-7			100	X	U240	
2,4-D	94-75-7			100	313	U240	
2,4-D Acid	94-75-7			100	X	U240	
2,4-D, salts and esters	94-75-7			100		U240	
2,4-D Esters	94-79-1			100			
2,4-D butyl ester	94-80-4			100	313		
2,4-D Esters	94-80-4			100	X		
2,4-DB	94-82-6				313		
Benzene, o-dimethyl-	95-47-6			1,000	X	U239	
o-Xylene	95-47-6			1,000	313	U239	
o-Cresol	95-48-7	1,000/10,000	100	100	313	U052	
o-Dichlorobenzene	95-50-1			100	X	U070	
1,2-Dichlorobenzene	95-50-1			100	313	U070	

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o-Toluidine	95-53-4			100	313	U328	
1,2-Phenylenediamine	95-54-5				313		
2-Chlorophenol	95-57-8			100		U048	
1,2,4-Trimethylbenzene	95-63-6				313		
p-Chloro-o-toluidine	95-69-2				313		
2,4-Diaminotoluene	95-80-7			10	313		
1,2,4,5-Tetrachlorobenzene	95-94-3			5,000		U207	
2,4,5-Trichlorophenol	95-95-4			10	313		
Styrene oxide	96-09-3			100	313		
DBCP	96-12-8			1	X	U066	
1,2-Dibromo-3-chloropropane	96-12-8			1	313	U066	
1,2,3-Trichloropropane	96-18-4				313		
1,3-Dichloro-2-propanol	96-23-1				313		
Methyl acrylate	96-33-3				313		
Ethylene thiourea	96-45-7			10	313	U116	
Dichlorophene	97-23-4				313		
C.I. Solvent Yellow 3	97-56-3				313		
Ethyl methacrylate	97-63-2			1,000		U118	
Furfural	98-01-1			5,000		U125	
Benzenearsonic acid	98-05-5	10/10,000	10				
Benzoic trichloride	98-07-7	100	10	10	313	U023	
Benzotrichloride	98-07-7	100	10	10	X	U023	
Benzenesulfonyl chloride	98-09-9			100		U020	
Trichlorophenylsilane	98-13-5	500	500				
Benzenamine, 3-(trifluoromethyl)-	98-16-8	500	500				
Cumene	98-82-8			5,000	313	U055	
Acetophenone	98-86-2			5,000	313	U004	
Benzal chloride	98-87-3	500	5,000	5,000	313	U017	
Benzoyl chloride	98-88-4			1,000	313		
Nitrobenzene	98-95-3	10,000	1,000	1,000	313	U169	
m-Nitrotoluene	99-08-1			1,000			
Dichloran	99-30-9				313		
1,3,5-Trinitrobenzene	99-35-4			10		U234	
5-Nitro-o-toluidine	99-55-8			100	313	U181	
5-Nitro-o-anisidine	99-59-2				313		
m-Dinitrobenzene	99-65-0			100	313		
Dimethyl-p-phenylenediamine	99-98-9	10/10,000	10				
p-Nitrotoluene	99-99-0			1,000			
p-Nitroaniline	100-01-6			5,000	313	P077	
4-Nitrophenol	100-02-7			100	313	U170	
p-Nitrophenol	100-02-7			100	X	U170	
Benzene, 1-(chloromethyl)-4-nitro-	100-14-1	500/10,000	500				
p-Dinitrobenzene	100-25-4			100	313		
Ethylbenzene	100-41-4			1,000	313		
Styrene	100-42-5			1,000	313		
Benzyl chloride	100-44-7	500	100	100	313	P028	
Benzonitrile	100-47-0			5,000			

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N-Nitrosopiperidine	100-75-4			10	313	U179	
Anilazine	101-05-3				313		
MBOCA	101-14-4			10	X	U158	
4,4'-Methylenebis(2-chloroaniline)	101-14-4			10	313	U158	
Barban	101-27-9			10		U280	
4-Bromophenyl phenyl ether	101-55-3			100		U030	
4,4'-Methylenebis(N,N-dimethyl)benzenamine	101-61-1				313		
MDI	101-68-8			5,000	X		
Methylenebis(phenylisocyanate)	101-68-8			5,000	313#		
4,4'-Methylenedianiline	101-77-9			10	313		
4,4'-Diaminodiphenyl ether	101-80-4				313		
Diglycidyl resorcinol ether	101-90-6				313		
Isocyanic acid, 3,4-dichlorophenyl ester	102-36-3	500/10,000	500				
Phenylthiourea	103-85-5	100/10,000	100	100		P093	
p-Chlorophenyl isocyanate	104-12-1				313		
4-Nonylphenol	104-40-5				313\$		
1,4-Phenylene diisocyanate	104-49-4				313#		
p-Anisidine	104-94-9				313		
sec-Butyl acetate	105-46-4			5,000			
2,4-Dimethylphenol	105-67-9			100	313	U101	
Benzene, p-dimethyl-	106-42-3			100	X	U239	
p-Xylene	106-42-3			100	313	U239	
p-Cresol	106-44-5			100	313	U052	
1,4-Dichlorobenzene	106-46-7			100	313	U072	
p-Chloroaniline	106-47-8			1,000	313	P024	
p-Toluidine	106-49-0			100		U353	
p-Phenylenediamine	106-50-3			5,000	313		
p-Benzoquinone	106-51-4			10	X	U197	
Quinone	106-51-4			10	313	U197	
1,2-Butylene oxide	106-88-7			100	313		
Epichlorohydrin	106-89-8	1,000	100	100	313	U041	20,000
Oxirane, (chloromethyl)-	106-89-8	1,000	100	100	X	U041	20,000
1,2-Dibromoethane	106-93-4			1	313	U067	
Ethylene dibromide	106-93-4			1	X	U067	
1-Bromopropane	106-94-5				313		
Propargyl bromide	106-96-7	10	10				
Butane	106-97-8						10,000
1-Butene	106-98-9						10,000
1,3-Butadiene	106-99-0			10	313		10,000
1-Butyne	107-00-6						10,000
Ethyl acetylene	107-00-6						10,000
2-Butene	107-01-7						10,000
Acrolein	107-02-8	500	1	1	313	P003	5,000
2-Propenal	107-02-8	500	1	1	X	P003	5,000
Allyl chloride	107-05-1			1,000	313		
1,2-Dichloroethane	107-06-2			100	313	U077	

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Ethylene dichloride	107-06-2			100	X	U077	
Chloroethanol	107-07-3	500	500				
n-Propylamine	107-10-8			5,000		U194	
Allylamine	107-11-9	500	500		313		10,000
2-Propen-1-amine	107-11-9	500	500		X		10,000
Ethyl cyanide	107-12-0	500	10	10		P101	10,000
Propanenitrile	107-12-0	500	10	10		P101	10,000
Propionitrile	107-12-0	500	10	10		P101	10,000
Acrylonitrile	107-13-1	10,000	100	100	313	U009	20,000
2-Propenenitrile	107-13-1	10,000	100	100	X	U009	20,000
1,2-Ethanediamine	107-15-3	10,000	5,000	5,000			20,000
Ethylenediamine	107-15-3	10,000	5,000	5,000			20,000
Formaldehyde cyanohydrin	107-16-4	1,000	1,000				
Allyl alcohol	107-18-6	1,000	100	100	313	P005	15,000
2-Propen-1-ol	107-18-6	1,000	100	100	X	P005	15,000
Propargyl alcohol	107-19-7			1,000	313	P102	
Chloroacetaldehyde	107-20-0			1,000		P023	
Ethylene glycol	107-21-1			5,000	313		
Ethene, methoxy-	107-25-5						10,000
Vinyl methyl ether	107-25-5						10,000
Chloromethyl methyl ether	107-30-2	100	10	10	313	U046	5,000
Methane, chloromethoxy-	107-30-2	100	10	10	X	U046	5,000
Formic acid, methyl ester	107-31-3						10,000
Methyl formate	107-31-3						10,000
Sarin	107-44-8	10	10				
TEPP	107-49-3	100	10	10		P111	
Tetraethyl pyrophosphate	107-49-3	100	10	10		P111	
Butyric acid	107-92-6			5,000			
Acetic acid ethenyl ester	108-05-4	1,000	5,000	5,000	X		15,000
Vinyl acetate	108-05-4	1,000	5,000	5,000	313		15,000
Vinyl acetate monomer	108-05-4	1,000	5,000	5,000	X		15,000
Methyl isobutyl ketone	108-10-1			5,000	313	U161	
Carbonochloridic acid, 1-methylethyl ester	108-23-6	1,000	1,000				15,000
Isopropyl chloroformate	108-23-6	1,000	1,000				15,000
Acetic anhydride	108-24-7			5,000			
Maleic anhydride	108-31-6			5,000	313	U147	
Benzene, m-dimethyl-	108-38-3			1,000	X	U239	
m-Xylene	108-38-3			1,000	313	U239	
m-Cresol	108-39-4			100	313	U052	
1,3-Phenylenediamine	108-45-2				313		
Resorcinol	108-46-3			5,000		U201	
Bis(2-chloro-1-methylethyl)ether	108-60-1			1,000	313	U027	
Dichloroisopropyl ether	108-60-1			1,000	X	U027	
Toluene	108-88-3			1,000	313	U220	
Chlorobenzene	108-90-7			100	313	U037	
Cyclohexanamine	108-91-8	10,000	10,000				15,000

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Cyclohexylamine	108-91-8	10,000	10,000				15,000
Cyclohexanol	108-93-0				313		
Cyclohexanone	108-94-1			5,000		U057	
Phenol	108-95-2	500/10,000	1,000	1,000	313	U188	
Benzenethiol	108-98-5	500	100	100		P014	
Thiophenol	108-98-5	500	100	100		P014	
2-Methylpyridine	109-06-8			5,000	313	U191	
2-Picoline	109-06-8			5,000	X	U191	
Carbonochloridic acid, propylester	109-61-5	500	500				15,000
Propyl chloroformate	109-61-5	500	500				15,000
Pentane	109-66-0						10,000
1-Pentene	109-67-1						10,000
Butylamine	109-73-9			1,000			
Malononitrile	109-77-3	500/10,000	1,000	1,000	313	U149	
2-Methoxyethanol	109-86-4				313		
Diethylamine	109-89-7			100			
Ethene, ethoxy-	109-92-2						10,000
Vinyl ethyl ether	109-92-2						10,000
Ethyl nitrite	109-95-5						10,000
Nitrous acid, ethyl ester	109-95-5						10,000
Furan, tetrahydro-	109-99-9			1,000		U213	
Furan	110-00-9	500	100	100	313	U124	5,000
Maleic acid	110-16-7			5,000			
Fumaric acid	110-17-8			5,000			
iso-Butyl acetate	110-19-0			5,000			
Hexane	110-54-3			5,000	X		
n-Hexane	110-54-3			5,000	313		
trans-1,4-Dichloro-2-butene	110-57-6	500	500		313		
trans-1,4-Dichlorobutene	110-57-6	500	500		X		
2-Chloroethyl vinyl ether	110-75-8			1,000		U042	
Ethanol, 2-ethoxy-	110-80-5			1,000	X	U359	
2-Ethoxyethanol	110-80-5			1,000	313	U359	
Cyclohexane	110-82-7			1,000	313	U056	
Pyridine	110-86-1			1,000	313	U196	
Piperidine	110-89-4	1,000	1,000				15,000
N-Hydroxyethylethylenediamine	111-41-1				313		
Diethanolamine	111-42-2			100	313		
Bis(2-chloroethyl) ether	111-44-4	10,000	10	10	313	U025	
Dichloroethyl ether	111-44-4	10,000	10	10	X	U025	
Ethylenebisdithiocarbamic acid, salts & esters	111-54-6			5,000	X	U114	
Adiponitrile	111-69-3	1,000	1,000				
Bis(2-chloroethoxy) methane	111-91-1			1,000	313	U024	
Phenol, 2-(1-methylethoxy)-, methylcarbamate	114-26-1			100	X	U411	
Propoxur	114-26-1			100	313	U411	
Azaserine	115-02-6			1		U015	

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Propene	115-07-1				X		10,000
1-Propene	115-07-1				X		10,000
Propylene	115-07-1				313		10,000
Methane, oxybis-	115-10-6						10,000
Methyl ether	115-10-6						10,000
2-Methylpropene	115-11-7						10,000
1-Propene, 2-methyl-	115-11-7						10,000
Trichloroethylsilane	115-21-9	500	500				
Dimefox	115-26-4	500	500				
Chlorendic acid	115-28-6				313		
Endosulfan	115-29-7	10/10,000	1	1		P050	
Benzenemethanol, 4-chloro-.alpha.-4-chlorophenyl)-.alpha.-(trichloromethyl)-	115-32-2			10	X		
Dicofol	115-32-2			10	313		
Fensulfothion	115-90-2	500	500				
Tris(2-chloroethyl) phosphate	115-96-8				313		
Aldicarb	116-06-3	100/10,000	1	1	313	P070	
Ethene, tetrafluoro-	116-14-3						10,000
Tetrafluoroethylene	116-14-3				313		10,000
2-Aminoanthraquinone	117-79-3				313		
Dichlone	117-80-6			1			
Bis(2-ethylhexyl)phthalate	117-81-7			100	X	U028	
DEHP	117-81-7			100	X	U028	
Di(2-ethylhexyl) phthalate	117-81-7			100	313	U028	
Di-n-octyl phthalate	117-84-0			5,000		U107	
n-Dioctylphthalate	117-84-0			5,000		U107	
Hexachlorobenzene	118-74-1			10	313	U127	
Isopropylmethylpyrazolyl dimethylcarbamate	119-38-0	500	100	100		P192	
3,3'-Dimethoxybenzidine	119-90-4			100	313	U091	
3,3'-Dimethylbenzidine	119-93-7			10	313	U095	
o-Tolidine	119-93-7			10	X	U095	
Anthracene	120-12-7			5,000	313		
2,4-DP	120-36-5				313		
Isosafrole	120-58-1			100	313	U141	
p-Cresidine	120-71-8				313		
Catechol	120-80-9			100	313		
1,2,4-Trichlorobenzene	120-82-1			100	313		
2,4-Dichlorophenol	120-83-2			100	313	U081	
2,4-Dinitrotoluene	121-14-2			10	313	U105	
Pyrethrins	121-21-1			1			
Pyrethrins	121-29-9			1			
Triethylamine	121-44-8			5,000	313	U404	
N,N-Dimethylaniline	121-69-7			100	313		
Malathion	121-75-5			100	313		
Benzeneethanamine, alpha, alpha-dimethyl-	122-09-8			5,000		P046	

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NAME	CAS/313 Category Codes	Section 302 (EHS) TPQ	Section 304 EHS RQ	CERCLA RQ	Section 313	RCRA CODE	CAA 112(r) TQ
Simazine	122-34-9				313		
Diphenylamine	122-39-4				313		
Propham	122-42-9			1,000		U373	
1,2-Diphenylhydrazine	122-66-7			10	313	U109	
Hydrazine, 1,2-diphenyl-	122-66-7			10	X	U109	
Hydrazobenzene	122-66-7			10	X	U109	
Hydroquinone	123-31-9	500/10,000	100	100	313		
Maleic hydrazide	123-33-1			5,000		U148	
Propionaldehyde	123-38-6			1,000	313		
1,3-Phenylene diisocyanate	123-61-5				313#		
Propionic anhydride	123-62-6			5,000			
Paraldehyde	123-63-7			1,000	313	U182	
Butyraldehyde	123-72-8				313		
2-Butenal, (e)-	123-73-9	1,000	100	100		U053	20,000
Crotonaldehyde, (E)-	123-73-9	1,000	100	100		U053	20,000
Butyl acetate	123-86-4			5,000			
1,4-Dioxane	123-91-1			100	313	U108	
iso-Amyl acetate	123-92-2			5,000			
Adipic acid	124-04-9			5,000			
Dimethylamine	124-40-3			1,000	313	U092	10,000
Methanamine, N-methyl-	124-40-3			1,000	X	U092	10,000
Sodium methylate	124-41-4			1,000			
Chlorodibromomethane	124-48-1			100			
Sodium cacodylate	124-65-2	100/10,000	100				
Dibromotetrafluoroethane	124-73-2				313		
Halon 2402	124-73-2				X		
Picrotoxin	124-87-8	500/10,000	500				
Tris(2,3-dibromopropyl) phosphate	126-72-7			10	313	U235	
Methacrylonitrile	126-98-7	500	1,000	1,000	313	U152	10,000
2-Propenenitrile, 2-methyl-	126-98-7	500	1,000	1,000	X	U152	10,000
Chloroprene	126-99-8			100	313		
Perchloroethylene	127-18-4			100	X	U210	
Tetrachloroethylene	127-18-4			100	313	U210	
Zinc phenolsulfonate	127-82-2			5,000	313c		
Potassium dimethyldithiocarbamate	128-03-0				313		
Sodium dimethyldithiocarbamate	128-04-1				313		
C.I. Vat Yellow 4	128-66-5				313		
Pyrene	129-00-0	1,000/10,000	5,000	5,000			
Warfarin sodium	129-06-6	100/10,000	100	100	313c		
1,4-Naphthoquinone	130-15-4			5,000		U166	
Dimethyl phthalate	131-11-3			5,000	313	U102	
Sodium pentachlorophenate	131-52-2				313		
Ammonium picrate	131-74-8			10		P009	
2-Cyclohexyl-4,6-dinitrophenol	131-89-5			100		P034	
Sodium o-phenylphenoxide	132-27-4				313		
Dibenzofuran	132-64-9			100	313		
Captan	133-06-2			10	313		

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1H-Isoindole-1,3(2H)-dione, 3a,4,7,7a-tetrahydro-2-[(trichloromethyl)thio]-	133-06-2			10	X		
Folpet	133-07-3				313		
Benzoic acid, 3-amino-2,5-dichloro-	133-90-4			100	X		
Chloramben	133-90-4			100	313		
o-Anisidine hydrochloride	134-29-2				313		
<i>alpha</i> -Naphthylamine	134-32-7			100	313	U167	
Cupferron	135-20-6				313		
Dipropyl isocinchomeronate	136-45-8				313		
Thiram	137-26-8			10	313	U244	
Ziram	137-30-4			10		P205	
Potassium <i>N</i> -methylthiocarbamate	137-41-7				313		
Metham sodium	137-42-8				313		
Disodium cyanodithioimidocarbonate	138-93-2				313		
Nitrilotriacetic acid	139-13-9				313		
3,3'-Dimethyldiphenylmethane-4,4'-diisocyanate	139-25-3				313#		
4,4'-Thiodianiline	139-65-1				313		
Benzyl cyanide	140-29-4	500	500				
p-(1,1,3,3-Tetramethylbutyl)phenol	140-66-9				313		
Pyridine, 2-methyl-5-vinyl-	140-76-1	500	500				
Ethyl acrylate	140-88-5			1,000	313	U113	
Butyl acrylate	141-32-2				313		
Dicrotophos	141-66-2	100	100				
Ethyl acetate	141-78-6			5,000		U112	
1,3-Dichloropropane	142-28-9			1,000			
Nabam	142-59-6				313		
Cupric acetate	142-71-2			100	313c		
Dipropylamine	142-84-7			5,000		U110	
Sodium cyanide (Na(CN))	143-33-9	100	10	10	313c	P106	
Kepone	143-50-0			1		U142	
Fluoroacetic acid	144-49-0	10/10,000	10				
Endothall	145-73-3			1,000		P088	
Thiabendazole	148-79-8				313		
Melphalan	148-82-3			1		U150	
2-Mercaptobenzothiazole	149-30-4				313		
Dichloromethylphenylsilane	149-74-6	1,000	1,000				
Merphos	150-50-5				313		
Monuron	150-68-5				313		
Methoxyethylmercuric acetate	151-38-2	500/10,000	500		313c		
Potassium cyanide	151-50-8	100	10	10	313c	P098	
Aziridine	151-56-4	500	1	1	X	P054	10,000
Ethyleneimine	151-56-4	500	1	1	313	P054	10,000
Diphosphoramidate, octamethyl-	152-16-9	100	100	100		P085	
<i>p</i> -Nitrosodiphenylamine	156-10-5				313		
1,2-Dichloroethylene	156-60-5			1,000		U079	
Calcium cyanamide	156-62-7			1,000	313		

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Benzo[<i>rst</i>]pentaphene	189-55-9			10	313+	U064	
Dibenz[<i>a,i</i>]pyrene	189-55-9			10	X	U064	
Dibenzo[<i>a,h</i>]pyrene	189-64-0				313+		
Benzo[<i>g,h,i</i>]perylene	191-24-2			5,000	313		
Dibenzo[<i>a,l</i>]pyrene	191-30-0				313+		
Dibenzo[<i>a,e</i>]pyrene	192-65-4				313+		
Indeno[1,2,3- <i>cd</i>]pyrene	193-39-5			100	313+	U137	
7H-Dibenzo[<i>c,g</i>]carbazole	194-59-2				313+		
Benzo[<i>j</i>]fluoranthene	205-82-3				313+		
Benzo[<i>b</i>]fluoranthene	205-99-2			1	313+		
Fluoranthene	206-44-0			100	X	U120	
Benzo[<i>k</i>]fluoranthene	207-08-9			5,000	313+		
Acenaphthylene	208-96-8			5,000			
Benzo[<i>a</i>]phenanthrene	218-01-9			100	313+	U050	
Chrysene	218-01-9			100	X	U050	
Dibenz[<i>a,j</i>]acridine	224-42-0				313+		
Benz[<i>c</i>]acridine	225-51-4			100		U016	
Dibenz[<i>a,h</i>]acridine	226-36-8				313+		
Isobenzan	297-78-9	100/10,000	100				
O,O-Diethyl O-pyrazinyl phosphorothioate	297-97-2	500	100	100		P040	
Thionazin	297-97-2	500	100	100		P040	
Methyl parathion	298-00-0	100/10,000	100	100	313	P071	
Parathion-methyl	298-00-0	100/10,000	100	100	X	P071	
Phorate	298-02-2	10	10	10		P094	
Disulfoton	298-04-4	500	1	1		P039	
Amphetamine	300-62-9	1,000	1,000				
Naled	300-76-5			10	313		
Lead acetate	301-04-2			10	313c	U144	
Oxydemeton-methyl	301-12-2				313		
Hydrazine	302-01-2	1,000	1	1	313	U133	15,000
Lasiocarpine	303-34-4			10		U143	
Chlorambucil	305-03-3			10		U035	
2,2-Dichloro-1,1,1-trifluoroethane	306-83-2				313		
HCFC-123	306-83-2				X		
Aldrin	309-00-2	500/10,000	1	1	313	P004	
1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a- hexahydro- (1.alpha.,4.alpha.,4a.beta.,5.alpha.,8.alpha.,8a.beta.)-	309-00-2	500/10,000	1	1	X	P004	
Diethyl-p-nitrophenyl phosphate	311-45-5			100		P041	
Bromacil	314-40-9				313		
Mexacarbate	315-18-4	500/10,000	1,000	1,000		P128	
Emetine, dihydrochloride	316-42-7	1/10,000	1				
alpha-BHC	319-84-6			10	X		
alpha-Hexachlorocyclohexane	319-84-6			10	313		

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beta-BHC	319-85-7			1			
delta-BHC	319-86-8			1			
Trichloronate	327-98-0	500	500				
2,5-Dinitrophenol	329-71-5			10			
Diuron	330-54-1			100	313		
Linuron	330-55-2				313		
Diazinon	333-41-5			1	313		
Diazomethane	334-88-3			100	313		
Silver(I) perfluorooctanoate	335-93-3				313		
Boron trifluoride compound with methyl ether (1:1)	353-42-4	1,000	1,000				15,000
Boron, trifluoro[oxybis[methane]]-, (T- 4)-	353-42-4	1,000	1,000				15,000
Carbonic difluoride	353-50-4			1,000		U033	
Bromochlorodifluoromethane	353-59-3				313		
Halon 1211	353-59-3				X		
HCFC-121a	354-11-0				X		
1,1,1,2-Tetrachloro-2-fluoroethane	354-11-0				313		
HCFC-121	354-14-3				X		
1,1,2,2-Tetrachloro-1-fluoroethane	354-14-3				313		
1,2-Dichloro-1,1,2-trifluoroethane	354-23-4				313		
HCFC-123a	354-23-4				X		
1-Chloro-1,1,2,2-tetrafluoroethane	354-25-6				313		
HCFC-124a	354-25-6				X		
Brucine	357-57-3			100	313	P018	
Fluoroacetyl chloride	359-06-8	10	10				
Ethylene fluorohydrin	371-62-0	10	10				
Ergotamine tartrate	379-79-3	500/10,000	500				
1,2-Dichloro-1,1,2,3,3- pentafluoropropane	422-44-6				313		
HCFC-225bb	422-44-6				X		
2,3-Dichloro-1,1,1,2,3- pentafluoropropane	422-48-0				313		
HCFC-225ba	422-48-0				X		
3,3-Dichloro-1,1,1,2,2- pentafluoropropane	422-56-0				313		
HCFC-225ca	422-56-0				X		
1,2-Dichloro-1,1,3,3,3- pentafluoropropane	431-86-7				313		
HCFC-225da	431-86-7				X		
Cyanogen	460-19-5			100		P031	10,000
Ethanedinitrile	460-19-5			100		P031	10,000
3-Chloro-1,1,1-trifluoropropane	460-35-5				313		
HCFC-253fb	460-35-5				X		
1,2-Propadiene	463-49-0						10,000
Propadiene	463-49-0						10,000
Carbon oxide sulfide (COS)	463-58-1			100	X		10,000
Carbonyl sulfide	463-58-1			100	313		10,000

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2,2-Dimethylpropane	463-82-1						10,000
Propane, 2,2-dimethyl-	463-82-1						10,000
Isodrin	465-73-6	100/10,000	1	1	313	P060	
Chlorfenvinfos	470-90-6	500	500				
Auramine	492-80-8			100	X	U014	
C.I. Solvent Yellow 34	492-80-8			100	313	U014	
Chlornaphazine	494-03-1			100		U026	
Diaminotoluene	496-72-0			10		U221	
Methylmercuric dicyanamide	502-39-6	500/10,000	500		313c		
4-Aminopyridine	504-24-5	500/10,000	1,000	1,000		P008	
Pyridine, 4-amino-	504-24-5	500/10,000	1,000	1,000		P008	
1,3-Pentadiene	504-60-9			100		U186	10,000
Ethane, 1,1'-thiobis[2-chloro-	505-60-2	500	500		X		
Mustard gas	505-60-2	500	500		313		
Potassium silver cyanide	506-61-6	500	1	1	313c	P099	
Silver cyanide	506-64-9			1	313c	P104	
Cyanogen bromide	506-68-3	500/10,000	1,000	1,000	313c	U246	
Cyanogen chloride	506-77-4			10	313c	P033	10,000
Cyanogen iodide	506-78-5	1,000/10,000	1,000		313c		
Ammonium carbonate	506-87-6			5,000			
Acetyl bromide	506-96-7			5,000			
1,3-Dichloro-1,1,2,2,3-pentafluoropropane	507-55-1				313		
HCFC-225cb	507-55-1				X		
Perfluorooctyl iodide	507-63-1				313		
Methane, tetranitro-	509-14-8	500	10	10		P112	10,000
Tetranitromethane	509-14-8	500	10	10	313	P112	10,000
Benzeneacetic acid, 4-chloro-.alpha.-(4-chlorophenyl)-.alpha.-hydroxy-, ethyl ester	510-15-6			10	X	U038	
Chlorobenzilate	510-15-6			10	313	U038	
sec-Butylamine	513-49-5			1,000			
Dithiazanine iodide	514-73-8	500/10,000	500				
o-Dinitrobenzene	528-29-0			100	313		
2-Chloroacetophenone	532-27-4			100	313		
Dazomet	533-74-4				313		
Bis(chloromethyl) ketone	534-07-6	10/10,000	10				
4,6-Dinitro-o-cresol	534-52-1	10/10,000	10	10	313	P047	
Dinitrocresol	534-52-1	10/10,000	10	10	X	P047	
4,6-Dinitro-o-cresol and salts	534-52-1			10		P047	
Crimidine	535-89-7	100/10,000	100				
Ethylbis(2-chloroethyl)amine	538-07-8	500	500				
1,2-Dichloroethylene	540-59-0				313		
Hydrazine, 1,2-dimethyl-	540-73-8			1		U099	
2,2,4-Trimethylpentane	540-84-1			1,000			
tert-Butyl acetate	540-88-5			5,000			
Uranyl acetate	541-09-3			100			

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Lewisite	541-25-3	10	10				
Ethyl chloroformate	541-41-3				313		
Dithiobiuret	541-53-7	100/10,000	100	100	X	P049	
2,4-Dithiobiuret	541-53-7	100/10,000	100	100	313	P049	
1,3-Dichlorobenzene	541-73-1			100	313	U071	
Barium cyanide	542-62-1			10	313c	P013	
1,3-Dichloropropene	542-75-6			100	X	U084	
1,3-Dichloropropylene	542-75-6			100	313	U084	
3-Chloropropionitrile	542-76-7	1,000	1,000	1,000	313	P027	
Propionitrile, 3-chloro-	542-76-7	1,000	1,000	1,000	X	P027	
Bis(chloromethyl) ether	542-88-1	100	10	10	313	P016	1,000
Chloromethyl ether	542-88-1	100	10	10	X	P016	1,000
Dichloromethyl ether	542-88-1	100	10	10	X	P016	1,000
Methane, oxybis[chloro-	542-88-1	100	10	10	X	P016	1,000
Ethylthiocyanate	542-90-5	10,000	10,000				
Cadmium acetate	543-90-8			10	313c		
Cobaltous formate	544-18-3			1,000	313c		
Copper cyanide	544-92-3			10	313c	P029	
Lithium carbonate	554-13-2				313		
m-Nitrophenol	554-84-7			100			
Tris(2-chloroethyl)amine	555-77-1	100	100				
Glycidol	556-52-5				313		
Isothiocyanatomethane	556-61-6	500	500		X		
Methyl isothiocyanate	556-61-6	500	500		313		
Methyl thiocyanate	556-64-9	10,000	10,000				20,000
Thiocyanic acid, methyl ester	556-64-9	10,000	10,000				20,000
Nickel cyanide	557-19-7			10	313c	P074	
Zinc cyanide	557-21-1			10	313c	P121	
Zinc acetate	557-34-6			1,000	313c		
Zinc formate	557-41-5			1,000	313c		
2-Chloropropylene	557-98-2						10,000
1-Propene, 2-chloro-	557-98-2						10,000
Methanesulfonyl fluoride	558-25-8	1,000	1,000				
Ethion	563-12-2	1,000	10	10			
Semicarbazide hydrochloride	563-41-7	1,000/10,000	1,000				
3-Methyl-1-butene	563-45-1						10,000
2-Methyl-1-butene	563-46-2						10,000
3-Chloro-2-methyl-1-propene	563-47-3				313		
Thallium(I) acetate	563-68-8			100	313c	U214	
C.I. Basic Green 4	569-64-2				313		
2,6-Dinitrophenol	573-56-8			10			
Benzene, 2,4-diisocyanato-1-methyl-	584-84-9	500	100	100	X		10,000
Toluene-2,4-diisocyanate	584-84-9	500	100	100	313		10,000
2-Butene-cis	590-18-1						10,000
1-Chloropropylene	590-21-6						10,000
1-Propene, 1-chloro-	590-21-6						10,000
1-Acetyl-2-thiourea	591-08-2			1,000		P002	

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Calcium cyanide	592-01-8			10	313c	P021	
Mercuric cyanide	592-04-1			1	313c		
Mercuric thiocyanate	592-85-8			10	313c		
Lead thiocyanate	592-87-0			10	313c		
Vinyl bromide	593-60-2			100	313		
Methanesulfonyl chloride, trichloro-	594-42-3	500	100	100	X		10,000
Perchloromethyl mercaptan	594-42-3	500	100	100	313		10,000
Trichloromethanesulfonyl chloride	594-42-3	500	100	100	X		10,000
Tetraethyltin	597-64-8	100	100				
Bromoacetone	598-31-2			1,000		P017	
Bromotrifluoroethylene	598-73-2						10,000
Ethene, bromotrifluoro-	598-73-2						10,000
2,6-Dinitrotoluene	606-20-2			100	313	U106	
Hexachlorocyclohexane (all isomers)	608-73-1			&			
Pentachlorobenzene	608-93-5			10	313	U183	
3,4,5-Trichlorophenol	609-19-8			10			
3,4-Dinitrotoluene	610-39-9			10			
3,3'-Dimethylbenzidine dihydrochloride	612-82-8				313		
3,3'-Dichlorobenzidine dihydrochloride	612-83-9				313		
Thiourea, (2-methylphenyl)-	614-78-8	500/10,000	500				
2,4-Diaminoaniline	615-05-4				313		
1,2-Phenylenediamine dihydrochloride	615-28-1				313		
N-Nitroso-N-methylurethane	615-53-2			1		U178	
Di-n-propylnitrosamine	621-64-7			10	X	U111	
N-Nitrosodi-n-propylamine	621-64-7			10	313	U111	
1,4-Phenylenediamine dihydrochloride	624-18-0				313		
2-Butene, (E)	624-64-6						10,000
2-Butene-trans	624-64-6						10,000
Methane, isocyanato-	624-83-9	500	10	10	X	P064	10,000
Methyl isocyanate	624-83-9	500	10	10	313	P064	10,000
tert-Amyl acetate	625-16-1			5,000			
sec-Amyl acetate	626-38-0			5,000			
Chloroethyl chloroformate	627-11-2	1,000	1,000				
2-Pentene, (Z)-	627-20-3						10,000
Amyl acetate	628-63-7			5,000			
Mercury fulminate	628-86-4			10	313c	P065	
Selenourea	630-10-4			1,000		P103	
Ethane, 1,1,1,2-tetrachloro-	630-20-6			100	X	U208	
1,1,1,2-Tetrachloroethane	630-20-6			100	313	U208	
Ouabain	630-60-4	100/10,000	100				
Ammonium acetate	631-61-8			5,000			
o-Toluidine hydrochloride	636-21-5			100	313	U222	
Triphenyltin chloride	639-58-7	500/10,000	500		313		
Fluoroacetamide	640-19-7	100/10,000	100	100		P057	
Dimetilan	644-64-4	500/10,000	1	1		P191	
2-Pentene, (E)-	646-04-8						10,000
Cyanuric fluoride	675-14-9	100	100		313c		

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Methyl phosphonic dichloride	676-97-1	100	100				
Hexamethylphosphoramide	680-31-9			1	313		
Dibutyltin dichloride	683-18-1				313		
N-Nitroso-N-methylurea	684-93-5			1	313	U177	
1-Buten-3-yne	689-97-4						10,000
Vinyl acetylene	689-97-4						10,000
Diethylarsine	692-42-2			1		P038	
Dichlorophenylarsine	696-28-6	500	1	1		P036	
Phenyl dichloroarsine	696-28-6	500	1	1		P036	
Propanil	709-98-8				313		
Hexaethyl tetraphosphate	757-58-4			100		P062	
N-Nitroso-N-ethylurea	759-73-9			1	313	U176	
S-Ethyl dipropylthiocarbamate	759-94-4				313		
Methacrylic anhydride	760-93-0	500	500				
2-Butene, 1,4-dichloro-	764-41-0			1	X	U074	
1,4-Dichloro-2-butene	764-41-0			1	313	U074	
Glycidylaldehyde	765-34-4			10		U126	
Carbophenothion	786-19-6	500	500				
1,1-Dichloro-1,2,2-trifluoroethane	812-04-4				313		
HCFC-123b	812-04-4				X		
Diethyl chlorophosphate	814-49-3	500	500				
Acrylyl chloride	814-68-6	100	100				5,000
2-Propenoyl chloride	814-68-6	100	100				5,000
Cupric tartrate	815-82-7			100	313c		
Hexamethylene-1,6-diisocyanate	822-06-0			100	313#		
Diaminotoluene	823-40-5			10		U221	
Trimethylolpropane phosphite	824-11-3	100/10,000	100				
Ametryn	834-12-8				313		
C.I. Solvent Yellow 14	842-07-9				313		
N-Methyl-2-pyrrolidone	872-50-4				313		
Stannane, acetoxytriphenyl-	900-95-8	500/10,000	500				
Demeton-S-methyl	919-86-8	500	500				
Methacryloyl chloride	920-46-7	100	100				
N-Nitrosodi-n-butylamine	924-16-3			10	313	U172	
N-Methylolacrylamide	924-42-5				313		
N-Nitrosopyrrolidine	930-55-2			1		U180	
2,3,6-Trichlorophenol	933-75-5			10	313c		
2,3,5-Trichlorophenol	933-78-8			10	313c		
Fonofos	944-22-9	500	500				
Phosfolan	947-02-4	100/10,000	100				
Mephosfolan	950-10-7	500	500				
Methidathion	950-37-8	500/10,000	500				
Diphenamid	957-51-7				313		
alpha - Endosulfan	959-98-8			1			
Tetrachlorvinphos	961-11-5				313		
C.I. Basic Red 1	989-38-8				313		
Norbormide	991-42-4	100/10,000	100				

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Triethoxysilane	998-30-1	500	500				
Chlormequat chloride	999-81-5	100/10,000	100				
Heptachlor epoxide	1024-57-3			1			
Endosulfan sulfate	1031-07-8			1			
Triamiphos	1031-47-6	500/10,000	500				
Chromic acetate	1066-30-4			1,000	313c		
Ammonium bicarbonate	1066-33-7			5,000			
Trimethyltin chloride	1066-45-1	500/10,000	500				
Lead stearate	1072-35-1			10	313c		
Ammonium carbamate	1111-78-0			5,000			
Pebulate	1114-71-2				313		
N-Nitrosodiethanolamine	1116-54-7			1		U173	
1,3-Propane sultone	1120-71-4			10	313	U193	
Nitrocyclohexane	1122-60-7	500	500				
Pyridine, 4-nitro-, 1-oxide	1124-33-0	500/10,000	500				
Metolcarb	1129-41-5	100/10,000	1,000	1,000		P190	
Cycloate	1134-23-2				313		
Decabromodiphenyl oxide	1163-19-5				313		
Ferric ammonium citrate	1185-57-5			1,000			
Dichlobenil	1194-65-6			100			
1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylcyclopenta[g]-2-benzopyran	1222-05-5				313		
Xylenol	1300-71-6			1,000			
Arsenic pentoxide	1303-28-2	100/10,000	1	1	313c	P011	
Arsenic trisulfide	1303-33-9			1	313c		
Cadmium oxide	1306-19-0	100/10,000	100		313c		
Antimony trioxide	1309-64-4			1,000	313c		
Potassium hydroxide	1310-58-3			1,000			
Sodium hydroxide	1310-73-2			1,000			
Molybdenum trioxide	1313-27-5				313		
Thorium dioxide	1314-20-1				313		
Thallic oxide	1314-32-5			100	313c	P113	
Vanadium pentoxide	1314-62-1	100/10,000	1,000	1,000	313c	P120	
Sulfur phosphide	1314-80-3			100		U189	
Zinc phosphide	1314-84-7	500	100	100	313c	P122	
Zinc phosphide (conc. <= 10%)	1314-84-7	500	100	100	313c	U249	
Zinc phosphide (conc. > 10%)	1314-84-7	500	100	100	313c	P122	
Lead sulfide	1314-87-0			10	313c		
2,4,5-T amines	1319-72-8			5,000			
Cresol (mixed isomers)	1319-77-3			100	313	U052	
2,4-D Esters	1320-18-9			100	X		
2,4-D propylene glycol butyl ether ester	1320-18-9			100	313		
Nitrotoluene	1321-12-6			1,000			
Arsenic trioxide	1327-53-3	100/10,000	1	1	313c	P012	
Arsenous oxide	1327-53-3	100/10,000	1	1	313c	P012	
Xylene (mixed isomers)	1330-20-7			100	313	U239	
Dichlorobenzidine	1331-47-1			&			

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Zinc borate	1332-07-6			1,000	313c		
Asbestos (friable) +++	1332-21-4			1	313		
Hydrogen	1333-74-0						10,000
Sodium bifluoride	1333-83-1			100			
Lead subacetate	1335-32-6			10	313c	U146	
Hexachloronaphthalene	1335-87-1				313		
Ammonium hydroxide	1336-21-6			1,000	X		
PCBs	1336-36-3			1	X		
Polychlorinated biphenyls	1336-36-3			1	313		
Methyl ethyl ketone peroxide	1338-23-4			10		U160	
Naphthenic acid	1338-24-5			100			
Ammonium bifluoride	1341-49-7			100			
Aluminum oxide (fibrous forms)	1344-28-1				313		
Antimycin A	1397-94-0	1,000/10,000	1,000				
Dinoterb	1420-07-1	500/10,000	500				
2,2'-Bioxirane	1464-53-5	500	10	10	X	U085	
Diepoxybutane	1464-53-5	500	10	10	313	U085	
Trichloro(chloromethyl)silane	1558-25-4	100	100				
Carbofuran phenol	1563-38-8			10		U367	
Carbofuran	1563-66-2	10/10,000	10	10	313	P127	
Benezeneamine, 2,6-dinitro-N,N-dipropyl-4-(trifluoromethyl)-	1582-09-8			10	X		
Trifluralin	1582-09-8			10	313		
Mercuric acetate	1600-27-7	500/10,000	500		313c		
Hydrazine, 1,2-diethyl-	1615-80-1			10		U086	
Ethanesulfonyl chloride, 2-chloro-	1622-32-8	500	500				
Methyl tert-butyl ether	1634-04-4			1,000	313		
Aldicarb sulfone	1646-88-4			100		P203	
1,2-Dichloro-1,1-difluoroethane	1649-08-7				313		
HCFC-132b	1649-08-7				X		
Bromoxynil	1689-84-5				313		
Bromoxynil octanoate	1689-99-2				313		
1,1-Dichloro-1-fluoroethane	1717-00-6				313		
HCFC-141b	1717-00-6				X		
2,3,7,8-Tetrachlorodibenzo- <i>p</i> -dioxin (TCDD)	1746-01-6			1	313!		
Acetone thiosemicarbazide	1752-30-3	1,000/10,000	1,000				
Ammonium thiocyanate	1762-95-4			5,000			
Nitrofen	1836-75-5				313		
Benfluralin	1861-40-1				313		
Ammonium benzoate	1863-63-4			5,000			
Hexachloropropene	1888-71-7			1,000		U243	
Chlorothalonil	1897-45-6				313		
Paraquat dichloride	1910-42-5	10/10,000	10		313		
Atrazine	1912-24-9				313		
Dicamba	1918-00-9			1,000	313		
3,6-Dichloro-2-methoxybenzoic acid	1918-00-9			1,000	X		

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Picloram	1918-02-1				313		
Propachlor	1918-16-7				313		
2,4-D Esters	1928-38-7			100			
2,4-D 2-ethylhexyl ester	1928-43-4				313		
2,4,5-T esters	1928-47-8			1,000			
2,4-D Esters	1928-61-6			100			
2,4-D 2-butoxyethyl ester	1929-73-3			100	313		
2,4-D Esters	1929-73-3			100	X		
Nitrapyrin	1929-82-4				313		
C.I. Direct Black 38	1937-37-7				313		
Chloroxuron	1982-47-4	500/10,000	500				
Sodium dicamba	1982-69-0				313		
Tributyltin fluoride	1983-10-4				313		
Valinomycin	2001-95-8	1,000/10,000	1,000				
2,4,5-T amines	2008-46-0			5,000			
Mercaptodimethur	2032-65-7	500/10,000	10	10	X	P199	
Methiocarb	2032-65-7	500/10,000	10	10	313	P199	
Paraquat methosulfate	2074-50-2	10/10,000	10				
Phenylsilatrane	2097-19-0	100/10,000	100				
EPN	2104-64-5	100/10,000	100				
Tributyltin methacrylate	2155-70-6				313		
Dipotassium endothall	2164-07-0				313		
Fluometuron	2164-17-2				313		
Molinate	2212-67-1				313		
Cadmium stearate	2223-93-0	1,000/10,000	1,000		313c		
Thiocarbazine	2231-57-4	1,000/10,000	1,000				
Octachloronaphthalene	2234-13-1				313		
Diglycidyl ether	2238-07-5	1,000	1,000				
Prothoate	2275-18-5	100/10,000	100				
Dimethylamine dicamba	2300-66-5				313		
Carbamothioic acid, bis(1-methylethyl)- S-(2,3-dichloro-2-propenyl)ester	2303-16-4			100	X	U062	
Diallate	2303-16-4			100	313	U062	
Triallate	2303-17-5			100	313	U389	
Propargite	2312-35-8			10	313		
Potassium perfluorooctanoate	2395-00-8				313		
Chinomethionat	2439-01-2				313		
Dodine	2439-10-3				313		
Triglycidyl isocyanurate	2451-62-9				313		
Oxydisulfoton	2497-07-6	500	500				
Dimethyl chlorothiophosphate	2524-03-0	500	500		313		
Dimethyl phosphorochloridothioate	2524-03-0	500	500		X		
Formothion	2540-82-1	100	100				
2,4,5-T esters	2545-59-7			1,000			
1,4-Cyclohexane diisocyanate	2556-36-7				313#		
Pentadecylamine	2570-26-5	100/10,000	100				

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Phosphorothioic acid, O,O-dimethyl-5-(2-(methylthio)ethyl)ester	2587-90-8	500	500				
C.I. Direct Blue 6	2602-46-2				313		
Promecarb	2631-37-0	500/10,000	1,000	1,000		P201	
Cyanophos	2636-26-2	1,000	1,000				
Azinphos-ethyl	2642-71-9	100/10,000	100				
2,3,5-Trimethylphenyl methylcarbamate	2655-15-4				313		
Phosphonothioic acid, methyl-, O-(4-nitrophenyl) O-phenyl ester	2665-30-7	500	500				
Sulfuryl fluoride	2699-79-8				313		
2,4-D sodium salt	2702-72-9				313		
Phosphonothioic acid, methyl-, O-ethyl O-(4-(methylthio)phenyl) ester	2703-13-1	500	500				
Thallous malonate	2757-18-8	100/10,000	100				
5-(Aminomethyl)-3-isoxazolol	2763-96-4	500/10,000	1,000	1,000		P007	
Muscimol	2763-96-4	500/10,000	1,000	1,000		P007	
Diquat	2764-72-9			1,000			
Endothion	2778-04-3	500/10,000	500				
C.I. Disperse Yellow 3	2832-40-8				313		
2-Chloro-1,1,1,2-tetrafluoroethane	2837-89-0				313		
HCFC-124	2837-89-0				X		
Chlorpyrifos	2921-88-2			1			
Ferric ammonium oxalate	2944-67-4			1,000			
2,4-D chlorocrotyl ester	2971-38-2			100	313		
2,4-D Esters	2971-38-2			100	X		
Ammonium citrate, dibasic	3012-65-5			5,000			
Silane, (4-aminobutyl)diethoxymethyl-	3037-72-7	1,000	1,000				
C.I. Solvent Orange 7	3118-97-6				313		
Ammonium tartrate	3164-29-2			5,000			
4-Chloro-o-toluidine, hydrochloride	3165-93-3			100		U049	
1,5-Naphthalene diisocyanate	3173-72-6				313#		
1,2,5,6,9,10 - Hexabromocyclododecane	3194-55-6				313^		
Cupric nitrate	3251-23-8			100	313c		
Phosphoric acid, dimethyl 4-(methylthio) phenyl ester	3254-63-5	500	500				
1,2,3,4,6,7,8,9-octachlorodibenzo- <i>p</i> -dioxin	3268-87-9				313!		
O,O-Diethyl S-methyl dithiophosphate	3288-58-2			5,000		U087	
2,2-Bis(bromomethyl)-1,3-propanediol	3296-90-0				313		
Temephos	3383-96-8				313		
Zinc carbonate	3486-35-9			1,000	313c		
DDE ^b	3547-04-4			5,000			
Sulfoxide, 3-chloropropyl octyl	3569-57-1	500	500				
Benzimidazole, 4,5-dichloro-2-(trifluoromethyl)-	3615-21-2	500/10,000	500				
Methoxone sodium salt	3653-48-3				313		
Sulfotep	3689-24-5	500	100	100		P109	

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Tetraethyldithiopyrophosphate	3689-24-5	500	100	100		P109	
Chlorophacinone	3691-35-8	100/10,000	100				
5-Methylchrysene	3697-24-3				313+		
Amiton oxalate	3734-97-2	100/10,000	100				
Methyl phenkapton	3735-23-7	500	500				
C.I. Food Red 5	3761-53-3				313		
2,4,5-T amines	3813-14-7			5,000			
Fuberidazole	3878-19-1	100/10,000	100				
Bitoscanate	4044-65-9	500/10,000	500				
1-(3-Chloroallyl)-3,5,7-triaza-1- azoniaadamantane chloride	4080-31-3				313		
Isophorone diisocyanate	4098-71-9	500	500		313#		
Phosacetim	4104-14-7	100/10,000	100				
Dichlorosilane	4109-96-0						10,000
Silane, dichloro-	4109-96-0						10,000
4,4'-Diisocyanatodiphenyl ether	4128-73-8				313#		
2-Butenal	4170-30-3	1,000	100	100	X	U053	20,000
Crotonaldehyde	4170-30-3	1,000	100	100	313	U053	20,000
Fluometil	4301-50-2	100/10,000	100				
Phenol, 2,2'-thiobis[4-chloro-6-methyl- N-Nitrosomethylvinylamine	4418-66-0	100/10,000	100				
N-Nitrosomethylvinylamine	4549-40-0			10	313	P084	
C.I. Acid Green 3	4680-78-8				313		
Hexamethylenediamine, N,N'-dibutyl-	4835-11-4	500	500				
Nitrilotriacetic acid trisodium salt	5064-31-3				313		
Chlordane, alpha isomer	5103-71-9	1,000	1	1	313	U036	
Chlordane, gamma isomer	5103-74-2	1,000	1	1	313	U036	
1,1'-Methylene bis(4- isocyanatocyclohexane)	5124-30-1				313#		
Carboxin	5234-68-4				313		
Thiourea, (2-chlorophenyl)-	5344-82-1	100/10,000	100	100		P026	
Dibenzo(a,e)fluoranthene	5385-75-1				313+		
1-Nitropyrene	5522-43-0				313+		
Chlorpyrifos-methyl	5598-13-0				313		
Coumatetralyl	5836-29-3	500/10,000	500				
Terbacil	5902-51-2				313		
Ethanol, 2,2'-oxybis-, dicarbamate	5952-26-1			5,000		U395	
Ammonium oxalate	5972-73-6			5,000			
Ammonium oxalate	6009-70-7			5,000			
2,4,5-T amines	6369-96-6			5,000			
2,4,5-T amines	6369-97-7			5,000			
C.I. Acid Red 114	6459-94-5				313		
Thallium(I) carbonate	6533-73-9	100/10,000	100	100	313c	U215	
Thallos carbonate	6533-73-9	100/10,000	100	100	313c	U215	
Monocrotophos	6923-22-4	10/10,000	10				
4-Chlorophenyl phenyl ether	7005-72-3			5,000			
Prometryn	7287-19-6				313		

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Ethanol, 2-[2-[2-(4-nonylphenoxy)ethoxy]ethoxy]ethoxy]-	7311-27-5				313%		
Endrin aldehyde	7421-93-4			1			
Lead stearate	7428-48-0			10	313c		
Aluminum (fume or dust)	7429-90-5				313		
Lead ++	7439-92-1			10	313		
Manganese	7439-96-5				313		
Mercury	7439-97-6			1	313	U151	
Nickel ++	7440-02-0			100	313		
Silver ++	7440-22-4			1,000	313		
Sodium	7440-23-5			10			
Thallium ++	7440-28-0			1,000	313		
Antimony ++	7440-36-0			5,000	313		
Arsenic ++	7440-38-2			1	313		
Barium	7440-39-3				313		
Beryllium ++	7440-41-7			10	313	P015	
Cadmium ++	7440-43-9			10	313		
Chromium ++	7440-47-3			5,000	313		
Cobalt	7440-48-4				313		
Copper ++	7440-50-8			5,000	313		
Vanadium (except when contained in an alloy)	7440-62-2				313		
Zinc (fume or dust)	7440-66-6			1,000	313		
Zinc ++	7440-66-6			1,000			
Selenium dioxide	7446-08-4			10	313c		
Sulfur dioxide	7446-09-5	500	500				
Sulfur dioxide (anhydrous)	7446-09-5	500	500				5,000
Sulfur trioxide	7446-11-9	100	100				10,000
Lead sulfate	7446-14-2			10	313c		
Thallium(I) sulfate	7446-18-6	100/10,000	100	100	313c	P115	
Thallos sulfate	7446-18-6	100/10,000	100	100	313c	P115	
Lead phosphate	7446-27-7			10	313c	U145	
Cupric chloride	7447-39-4			10	313c		
Mercuric chloride	7487-94-7	500/10,000	500		313c		
Selenium sulfide	7488-56-4			10	313c	U205	
6-Nitrochrysene	7496-02-8				313+		
Titanium chloride (TiCl ₄) (T-4)-	7550-45-0	100	1,000	1,000	X		2,500
Titanium tetrachloride	7550-45-0	100	1,000	1,000	313		2,500
Sodium phosphate, dibasic	7558-79-4			5,000			
Lithium hydride	7580-67-8	100	100				
Sodium phosphate, tribasic	7601-54-9			5000			
Sodium arsenate	7631-89-2	1,000/10,000	1	1	313c		
Sodium bisulfite	7631-90-5			5,000			
Sodium nitrite	7632-00-0			100	313		
Borane, trifluoro-	7637-07-2	500	500		X		5,000
Boron trifluoride	7637-07-2	500	500		313		5,000
Lead arsenate	7645-25-2			1	313c		

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Zinc chloride	7646-85-7			1,000	313c		
Hydrochloric acid	7647-01-0			5,000			
Hydrochloric acid (conc 37% or greater)	7647-01-0			5,000			15,000
Hydrochloric acid (aerosol forms only)	7647-01-0			5,000	313		
Hydrogen chloride (anhydrous)	7647-01-0	500	5,000	5,000	X		5,000
Hydrogen chloride (gas only)	7647-01-0	500	5,000	5,000	X		5,000
Antimony pentachloride	7647-18-9			1,000			
Phosphoric acid	7664-38-2			5,000			
Hydrofluoric acid	7664-39-3	100	100	100	X	U134	
Hydrofluoric acid (conc. 50% or greater)	7664-39-3	100	100	100	X	U134	1,000
Hydrogen fluoride	7664-39-3	100	100	100	313	U134	
Hydrogen fluoride (anhydrous)	7664-39-3	100	100	100	X	U134	1,000
Ammonia	7664-41-7	500	100	100			
Ammonia (anhydrous)	7664-41-7	500	100	100	X		10,000
Ammonia (conc 20% or greater)	7664-41-7			See ammonium hydroxide	X		20,000
Ammonia (includes anhydrous ammonia and aqueous ammonia from water dissociable ammonium salts and other sources; 10 percent of total aqueous ammonia is reportable under this listing)	7664-41-7				313		
Sulfuric acid (aerosol forms only)	7664-93-9	1,000	1,000	1,000	313		
Sulfuric acid	7664-93-9	1,000	1,000	1,000			
Sodium fluoride	7681-49-4			1,000			
Sodium hypochlorite	7681-52-9			100			
Tetramethrin	7696-12-0				313		
Nitric acid	7697-37-2	1,000	1,000	1,000	313		
Nitric acid (conc 80% or greater)	7697-37-2	1,000	1,000	1,000	X		15,000
Zinc bromide	7699-45-8			1,000	313c		
Ferric chloride	7705-08-0			1,000			
Nickel chloride	7718-54-9			100	313c		
Phosphorous trichloride	7719-12-2	1,000	1,000	1,000			15,000
Phosphorus trichloride	7719-12-2	1,000	1,000	1,000			15,000
Ferrous sulfate	7720-78-7			1,000			
Potassium permanganate	7722-64-7			100	313c		
Hydrogen peroxide (Conc.> 52%)	7722-84-1	1,000	1,000				
Phosphorus (yellow or white)	7723-14-0	100	1	1	X ¹		
Phosphorus	7723-14-0	100	1	1			
Bromine	7726-95-6	500	500		313		10,000
Zinc sulfate	7733-02-0			1,000	313c		
Chromic acid	7738-94-5			10	313c		
Potassium bromate	7758-01-2				313		
Ferrous chloride	7758-94-3			100			
Lead chloride	7758-95-4			10	313c		
Cupric sulfate	7758-98-7			10	313c		

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Silver nitrate	7761-88-8			1	313c		
Ammonium sulfamate	7773-06-0			5,000			
Sodium chromate	7775-11-3			10	313c		
Arsenic acid	7778-39-4			1	313c	P010	
Calcium arsenate	7778-44-1	500/10,000	1	1	313c		
Potassium bichromate	7778-50-9			10	313c		
Calcium hypochlorite	7778-54-3			10			
Zinc hydrosulfite	7779-86-4			1,000	313c		
Zinc nitrate	7779-88-6			1,000	313c		
Fluorine	7782-41-4	500	10	10	313	P056	1,000
Selenium ++	7782-49-2			100	313		
Chlorine	7782-50-5	100	10	10	313		2,500
Ferrous sulfate	7782-63-0			1,000			
Sodium selenite	7782-82-3			100	313c		
Mercurous nitrate	7782-86-7			10	313c		
Selenious acid	7783-00-8	1,000/10,000	10	10	313c	U204	
Hydrogen sulfide	7783-06-4	500	100	100	313	U135	10,000
Hydrogen selenide	7783-07-5	10	10		313c		500
Mercuric sulfate	7783-35-9			10	313c		
Lead fluoride	7783-46-2			10	313c		
Zinc fluoride	7783-49-5			1,000	313c		
Ferric fluoride	7783-50-8			100			
Antimony trifluoride	7783-56-4			1,000	313c		
Sulfur fluoride (SF4), (T-4)-	7783-60-0	100	100				2,500
Sulfur tetrafluoride	7783-60-0	100	100				2,500
Antimony pentafluoride	7783-70-2	500	500		313c		
Tellurium hexafluoride	7783-80-4	100	100				
Arsenous trichloride	7784-34-1	500	1	1	313c		15,000
Lead arsenate	7784-40-9			1	313c		
Potassium arsenate	7784-41-0			1	313c		
Arsine	7784-42-1	100	100				1,000
Sodium arsenite	7784-46-5	500/10,000	1	1	313c		
Mevinphos	7786-34-7	500	10	10	313		
Nickel sulfate	7786-81-4			100	313c		
Beryllium chloride	7787-47-5			1	313c		
Beryllium fluoride	7787-49-7			1	313c		
Beryllium nitrate	7787-55-5			1	313c		
Ammonium chromate	7788-98-9			10	313c		
Potassium chromate	7789-00-6			10	313c		
Strontium chromate	7789-06-2			10	313c		
Ammonium bichromate	7789-09-5			10	313c		
Cadmium bromide	7789-42-6			10	313c		
Cobaltous bromide	7789-43-7			1,000	313c		
Antimony tribromide	7789-61-9			1,000	313c		
Chlorosulfonic acid	7790-94-5			1,000			
Thallium chloride TlCl	7791-12-0	100/10,000	100	100	313c	U216	
Thalious chloride	7791-12-0	100/10,000	100	100	313c	U216	

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Chlorine monoxide	7791-21-1						10,000
Chlorine oxide	7791-21-1						10,000
Selenium oxychloride	7791-23-3	500	500		313c		
Phosphine	7803-51-2	500	100	100	313	P096	5,000
Ammonium vanadate	7803-55-6			1,000	313c	P119	
Silane	7803-62-5						10,000
Camphechlor	8001-35-2	500/10,000	1	1	X	P123	
Camphene, octachloro-	8001-35-2	500/10,000	1	1	X	P123	
Toxaphene	8001-35-2	500/10,000	1	1	313	P123	
Creosote	8001-58-9				313		
Dichloropropane - Dichloropropene (mixture)	8003-19-8			100			
Pyrethrins	8003-34-7			1			
Oleum (fuming sulfuric acid)	8014-95-7			1,000			10,000
Sulfuric acid (fuming)	8014-95-7			1,000			10,000
Sulfuric acid, mixture with sulfur trioxide	8014-95-7			1,000			10,000
Demeton	8065-48-3	500	500				
Metiram	9006-42-2				313		
Poly(oxy-1,2-ethanediyl), α - (nonylphenyl)- ω -hydroxy-	9016-45-9				313%		
Polymeric diphenylmethane diisocyanate	9016-87-9				313#		
Sodium hypochlorite	10022-70-5			100			
Sulfur monochloride	¹ 10025-67-9			1,000			
Chromic chloride	10025-73-7	1/10,000	1		313c		
Silane, trichloro-	10025-78-2						10,000
Trichlorosilane	10025-78-2						10,000
Phosphorus oxychloride	10025-87-3	500	1,000	1,000			5,000
Phosphoryl chloride	10025-87-3	500	1,000	1,000			5,000
Antimony trichloride	10025-91-9			1,000	313c		
Zirconium tetrachloride	10026-11-6			5,000			
Phosphorus pentachloride	10026-13-8	500	500				
Ozone	10028-15-6	100	100		313		
Ferric sulfate	10028-22-5			1,000			
Thallium sulfate	10031-59-1	100/10,000	100	100	313c		
Hydrazine sulfate (1:1)	10034-93-2				313		
Sodium phosphate, dibasic	10039-32-4			5,000			
Aluminum sulfate	10043-01-3			5,000			
Ferrous ammonium sulfate	10045-89-3			1,000			
Mercuric nitrate	10045-94-0			10	313c		
Chlorine dioxide	10049-04-4				313		1,000
Chlorine oxide (ClO ₂)	10049-04-4				X		1,000
Chromous chloride	10049-05-5			1,000	313c		
<i>trans</i> -1,3-Dichloropropene	10061-02-6				313		

¹ This is the correct CAS number but not the same CAS number that is in the CERCLA list. See Introduction for further information.

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Lead nitrate	10099-74-8			10	313c		
Chromic sulfate	10101-53-8			1,000	313c		
Lead iodide	10101-63-0			10	313c		
Sodium phosphate, tribasic	10101-89-0			5,000			
Uranyl nitrate	10102-06-4			100			
Sodium selenite	10102-18-8	100/10,000	100	100	313c		
Sodium tellurite	10102-20-2	500/10,000	500				
Nitric oxide	10102-43-9	100	10	10 @		P076	10,000
Nitrogen oxide (NO)	10102-43-9	100	10	10 @		P076	10,000
Nitrogen dioxide	10102-44-0	100	10	10 @		P078	
Thallium(I) nitrate	10102-45-1			100	313c	U217	
Lead arsenate	10102-48-4			1	313c		
Cadmium chloride	10108-64-2			10	313c		
Potassium arsenite	10124-50-2	500/10,000	1	1	313c		
Sodium phosphate, dibasic	10140-65-5			5,000			
Ethanol, 1,2-dichloro-, acetate	10140-87-1	1,000	1,000				
Ammonium bisulfite	10192-30-0			5,000			
Ammonium sulfite	10196-04-0			5,000			
Cobalt carbonyl	10210-68-1	10/10,000	10		313c		
2,2-Dibromo-3-nitrilopropionamide	10222-01-2				313s		
Methamidophos	10265-92-6	100/10,000	100				
Borane, trichloro-	10294-34-5	500	500		X		5,000
Boron trichloride	10294-34-5	500	500		313		5,000
Dialifor	10311-84-9	100/10,000	100				
1,4-Bis(methylisocyanate)cyclohexane	10347-54-3				313#		
Sodium phosphate, tribasic	10361-89-4			5,000			
Cupric sulfate, ammoniated	10380-29-7			100	313c		
Mercurous nitrate	10415-75-5			10	313c		
Ferric nitrate	10421-48-4			1,000			
Resmethrin	10453-86-8				313		
Methacrolein diacetate	10476-95-6	1,000	1,000				
Nitrogen dioxide	10544-72-6			10 @			
Sodium bichromate	10588-01-9			10	313c		
Carbendazim	10605-21-7			10		U372	
Isononylphenol	11066-49-2				313\$		
Aroclor 1260	11096-82-5			1			
Aroclor 1254	11097-69-1			1			
Aroclor 1221	11104-28-2			1			
Aroclor 1232	11141-16-5			1			
Cupric acetoarsenite	12002-03-8	500/10,000	1	1	313c		
Paris green	12002-03-8	500/10,000	1	1			
Selenious acid, dithallium(1+) salt	12039-52-0			1,000	313c	P114	
Arsenic disulfide	12044-79-0			1	313c		
Nickel hydroxide	12054-48-7			10	313c		
Manganese, tricarbonyl methylcyclopentadienyl	12108-13-3	100	100		313c		
Zineb	12122-67-7				313		

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Ammonium fluoride	12125-01-8			100			
Ammonium chloride	12125-02-9			5,000			
Ammonium sulfide	12135-76-1			100			
Phosphorus (yellow or white)	12185-10-3				313		
Maneb	12427-38-2				313		
Aroclor 1248	12672-29-6			1			
Aroclor 1016	12674-11-2			1			
Sulfur monochloride	² 12771-08-3			1,000			
Terbufos	13071-79-9	100	100				
Phosphamidon	13171-21-6	100	100				
Ethoprop	13194-48-4	1,000	1,000		313		
Ethoprophos	13194-48-4	1,000	1,000		X		
Phosphorodithioic acid O-ethyl S,S-dipropyl ester	13194-48-4	1,000	1,000		X		
Fenbutatin oxide	13356-08-6				313		
Sodium selenate	13410-01-0	100/10,000	100		313c		
Gallium trichloride	13450-90-3	500/10,000	500				
Nickel carbonyl	13463-39-3	1	10	10	313c	P073	1,000
Iron carbonyl (Fe(CO) ₅), (TB-5-11)-	13463-40-6	100	100		X		2,500
Iron, pentacarbonyl-	13463-40-6	100	100		313		2,500
1,1-Dichloro-1,2,2,3,3-pentafluoropropane	13474-88-9				313		
HCFC-225cc	13474-88-9				X		
2,4,5-T salts	13560-99-1			1,000			
Beryllium nitrate	13597-99-4			1	313c		
Tris(1,3-dichloro-2-propyl) phosphate	13674-87-8				313		
Desmedipham	13684-56-5				313		
Zirconium nitrate	13746-89-9			5,000			
Calcium chromate	13765-19-0			10	313c	U032	
Lead fluoborate	13814-96-5			10	313c		
Ammonium fluoborate	13826-83-0			5,000			
sec-Butylamine	13952-84-6			1,000			
Cobaltous sulfamate	14017-41-5			1,000	313c		
Salcomine	14167-18-1	500/10,000	500				
Nickel nitrate	14216-75-2			100	313c		
Ammonium oxalate	14258-49-2			5,000			
Lithium chromate	14307-35-8			10	313c		
Ammonium tartrate	14307-43-8			5,000			
Ferbam	14484-64-1				313		
Zinc ammonium chloride	14639-97-5			1,000	313c		
Zinc ammonium chloride	14639-98-6			1,000	313c		
Zirconium sulfate	14644-61-2			5,000			

² CAS Number should be 10025-67-9. See Introduction for further explanation.

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NAME	CAS/313 Category Codes	Section 302 (EHS) TPQ	Section 304 EHS RQ	CERCLA RQ	Section 313	RCRA CODE	CAA 112(r) TQ
Bicyclo[2.2.1]heptane-2-carbonitrile, 5-chloro-6-(((methylamino)carbonyl)oxy)imino)-(1-alpha,2-beta,4-alpha,5-alpha,6E))-	15271-41-7	500/10,000	500				
Manganese, bis(dimethylcarbamoedithioato-S,S')-	15339-36-3			10	313c	P196	
2,4,4-Trimethylhexamethylene diisocyanate	15646-96-5				313#		
Nickel ammonium sulfate	15699-18-0			100	313c		
Lead sulfate	15739-80-7			10	313c		
2,3,4-Trichlorophenol	15950-66-0			10	313c		
Alachlor	15972-60-8				313		
C.I. Direct Brown 95	16071-86-6				313		
N-Nitrosornicotine	16543-55-8				313		
Sodium hydrosulfide	16721-80-5			5,000			
Ethanimidothioic acid, N-[[methylamino)carbonyl]	16752-77-5	500/10,000	100	100		P066	
Methomyl	16752-77-5	500/10,000	100	100		P066	
Zinc silicofluoride	16871-71-9			5,000	313c		
Ammonium silicofluoride	16919-19-0			1,000			
Zirconium potassium fluoride	16923-95-8			1,000			
2,2,4-Trimethylhexamethylene diisocyanate	16938-22-0				313#		
Decaborane(14)	17702-41-9	500/10,000	500				
Formparanate	17702-57-7	100/10,000	100	100		P197	
Benomyl	17804-35-2			10	313	U271	
Streptozotocin	18883-66-4			1		U206	
Oryzalin	19044-88-3				313		
Diborane	19287-45-7	100	100				2,500
Diborane(6)	19287-45-7	100	100				2,500
1,2,3,7,8,9-hexachlorodibenzo- <i>p</i> -dioxin	19408-74-3				313!		
Pentaborane	19624-22-7	500	500				
Oxydiazon	19666-30-9				313		
3,3'-Dimethoxybenzidine dihydrochloride	20325-40-0				313		
Methazole	20354-26-1				313		
Ethanol, 2-[2-(4-nonylphenoxy)ethoxy]-	20427-84-3				313%		
Osmium oxide OsO ₄ (T-4)-	20816-12-0			1,000	X	P087	
Osmium tetroxide	20816-12-0			1,000	313	P087	
Digoxin	20830-75-5	10/10,000	10				
Daunomycin	20830-81-3			10		U059	
Aluminum phosphide	20859-73-8	500	100	100	313	P006	
Metribuzin	21087-64-9				313		
Fosthietan	21548-32-3	500	500				
Leptophos	21609-90-5	500/10,000	500				
Cyanazine	21725-46-2				313		
Mercuric oxide	21908-53-2	500/10,000	500		313c		
Chlorthiophos	21923-23-9	500	500				

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Fenamiphos	22224-92-6	10/10,000	10				
Bendiocarb	22781-23-3			100	313	U278	
2,2-Dimethyl-1,3-benzodioxol-4-ol methylcarbamate	22781-23-3			100	X	U278	
Bendiocarb phenol	22961-82-6			1,000		U364	
Oxamyl	23135-22-0	100/10,000	100	100		P194	
Formetanate hydrochloride	23422-53-9	500/10,000	100	100		P198	
Pirimifos-ethyl	23505-41-1	1,000	1,000				
Thiophanate-methyl	23564-05-8			10	313	U409	
Thiophanate-ethyl	23564-06-9				313		
Benzamide, 3,5-dichloro-N-(1,1- dimethyl-2-propynyl	23950-58-5			5,000	X	U192	
Pronamide	23950-58-5			5,000	313	U192	
Triazofos	24017-47-8	500	500				
Chlormephos	24934-91-6	500	500				
Nonylphenol	25154-52-3				313\$		
Dinitrobenzene (mixed isomers)	25154-54-5			100			
Nitrophenols	25154-55-6			&			
Nitrophenol (mixed isomers)	25154-55-6			100			
Tris(dimethylphenol) phosphate	25155-23-1				313		
Sodium dodecylbenzenesulfonate	25155-30-0			1,000			
Butene	25167-67-3						10,000
Trichlorophenol	25167-82-2			10	313c		
2,4,5-T esters	25168-15-4			1,000			
2,4-D Esters	25168-26-7			100			
Isofenphos	25311-71-1				313		
Dinitrotoluene (mixed isomers)	25321-14-6			10	313		
Dichlorobenzene	25321-22-6			100	X		
Dichlorobenzene (mixed isomers)	25321-22-6			100	313		
Diaminotoluene (mixed isomers)	25376-45-8			10	313	U221	
Toluenediamine	25376-45-8			10	X	U221	
Dinitrophenol	25550-58-7			10			
Hexabromocyclododecane	25637-99-4				313^		
Phenothrin	26002-80-2				313		
Poly(oxy-1,2-ethanediyl), α-(4- nonylphenyl)-ω-hydroxy-	26027-38-3				313%		
Calcium dodecylbenzenesulfonate	26264-06-2			1,000			
Carbamic acid, methyl-, O-(((2,4- dimethyl-1,3-dithiolan-2- yl)methylene)amino)-	26419-73-8	100/10,000	100	100		P185	
Benzene, 1,3-diisocyanatomethyl-	26471-62-5			100	X	U223	10,000
Toluenediisocyanate (mixed isomers)	26471-62-5			100	313	U223	10,000
Toluene diisocyanate (unspecified isomer)	26471-62-5			100	X	U223	10,000
4-Isononylphenol	26543-97-5				313\$		
3,6,9,12,15,18,21,24- Octaoxahexacosan-1-ol, 26- (nonylphenoxy)-	26571-11-9				313%		

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Sodium azide (Na(N ₃))	26628-22-8	500	1,000	1,000	313	P105	
Dichloropropane	26638-19-7			1,000			
Triforine	26644-46-2				313		
Dichloropropene	26952-23-8			100			
Trichloro(dichlorophenyl)silane	27137-85-5	500	500				
Dodecylbenzenesulfonic acid	27176-87-0			1,000			
Ethanol, 2-[2-(nonylphenoxy)ethoxy]-	27176-93-8				313%		
3,6,9,12,15,18,21-Heptaoxatricosan-1-ol, 23-(nonylphenoxy)-	27177-05-5				313%		
3,6,9,12,15,18,21,24,27-Nonaioxanonacosan-1-ol, 29-(nonylphenoxy)-	27177-08-8				313%		
Norflurazon	27314-13-2				313		
Triethanolamine dodecylbenzene sulfonate	27323-41-7			1,000			
Vanadyl sulfate	27774-13-6			1,000	313c		
Ethanol, 2-(nonylphenoxy)-	27986-36-3				313%		
Thiobencarb	28249-77-6				313		
Antimony potassium tartrate	28300-74-5			100	313c		
Xylylene dichloride	28347-13-9	100/10,000	100				
C.I. Direct Blue 218	28407-37-6				313		
<i>d-trans</i> -Allethrin	28434-00-6				313		
Bromadiolone	28772-56-7	100/10,000	100				
Octachlorostyrene	29082-74-4				313		
Pirimiphos-methyl	29232-93-7				313		
Paraformaldehyde	30525-89-4			1,000			
Ethanimidothioic acid, 2-(dimethylamino)-N-hydroxy-2-oxo-, methyl ester	30558-43-1			5,000		U394	
Acephate	30560-19-1				313		
Methacryloyloxyethyl isocyanate	30674-80-7	100	100				
Propetamphos	31218-83-4				313		
2,4,5-TP esters	32534-95-5			100			
Amitraz	33089-61-1				313		
beta - Endosulfan	33213-65-9			1			
Tebuthiuron	34014-18-1				313		
Dichlorotrifluoroethane	34077-87-7				313		
Diflubenzuron	35367-38-5				313		
Sulprofos	35400-43-2				313		
Imazalil	35554-44-0				313		
1-Bromo-1-(bromomethyl)-1,3-propanedicarbonitrile	35691-65-7				313		
1,2,3,4,6,7,8-heptachlorodibenzo- <i>p</i> -dioxin	35822-46-9				313!		
Uranyl nitrate	36478-76-9			100			
Poly(oxy-1,2-ethanediyl), a-(isononylphenyl)-w-hydroxy-	37205-87-1				313%		

Consolidated List of Chemicals by CAS Number

NAME	CAS/313 Category Codes	Section 302 (EHS) TPQ	Section 304 EHS RQ	CERCLA RQ	Section 313	RCRA CODE	CAA 112(r) TQ
Nickel chloride	37211-05-5			100	313c		
Diphenylhydrazine	38622-18-3			&			
1,3-Bis(methylisocyanate)cyclohexane	38661-72-2				313#		
Diethyl ethyl	38727-55-8				313		
1,2,3,4,6,7,8,9-octachlorodibenzofuran	39001-02-0				313!		
2,4-Diaminoanisoole sulfate	39156-41-7				313		
Thiofanox	39196-18-4	100/10,000	100	100		P045	
1,2,3,4,7,8-hexachlorodibenzo- <i>p</i> -dioxin	39227-28-6				313!		
Dinocap	39300-45-3				313		
Fenpropathrin	39515-41-8				313		
1,2,3,7,8-pentachlorodibenzo- <i>p</i> -dioxin	40321-76-4				313!		
Pendimethalin	40487-42-1				313		
Profenofos	41198-08-7				313		
3,3'-Dimethylbenzidine dihydrofluoride	41766-75-0				313		
1,6-Dinitropyrene	42397-64-8				313+		
1,8-Dinitropyrene	42397-65-9				313+		
Isopropanolamine dodecylbenzene sulfonate	42504-46-1			1,000			
Oxyfluorfen	42874-03-3				313		
Triadimefon	43121-43-3				313		
Vinclozolin	50471-44-8				313		
Phosphonothioic acid, methyl-, S-(2- (bis(1-methylethyl)amino)ethyl) O-ethyl ester	50782-69-9	100	100				
2,3,7,8-tetrachlorodibenzofuran	51207-31-9				313!		
Hexazinone	51235-04-2				313		
Diclofop methyl	51338-27-3				313		
Fenvalerate	51630-58-1				313		
Poly(oxy-1,2-ethanediyl), α -(2- nonylphenyl)- ω -hydroxy-	51938-25-1				313%		
Zinc ammonium chloride	52628-25-8			1,000	313c		
Permethrin	52645-53-1				313		
Calcium arsenite	52740-16-6			1	313c		
Carbamothioic acid, dipropyl-, S- (phenylmethyl) ester	52888-80-9			5,000		U387	
Bromacil, lithium salt	53404-19-6				313		
2,4-D 2-ethyl-4-methylpentyl ester	53404-37-8				313		
Dazomet, sodium salt	53404-60-7				313		
2,4-D Esters	53467-11-1			100			
Aroclor 1242	53469-21-9			1			
Pyriminil	53558-25-1	100/10,000	100				
Carbosulfan	55285-14-8			1,000		P189	
Dimethipin	55290-64-7				313		
3-Iodo-2-propynyl butylcarbamate	55406-53-6				313		
Ferric ammonium oxalate	55488-87-4			1,000			
Cupric oxalate	55671-32-4			100	313c		
1,2,3,4,7,8,9-heptachlorodibenzofuran	55673-89-7				313!		

Consolidated List of Chemicals by CAS Number

NAME	CAS/313 Category Codes	Section 302 (EHS) TPQ	Section 304 EHS RQ	CERCLA RQ	Section 313	RCRA CODE	CAA 112(r) TQ
Lead stearate	56189-09-4			10	313c		
2,3,4,7,8-pentachlorodibenzofuran	57117-31-4				313!		
1,2,3,7,8-pentachlorodibenzofuran	57117-41-6				313!		
1,2,3,6,7,8-hexachlorodibenzofuran	57117-44-9				313!		
Triclopyr-triethylammonium salt	57213-69-1				313		
1,2,3,6,7,8-hexachlorodibenzo- <i>p</i> -dioxin	57653-85-7				313!		
4-Nitropyrene	57835-92-4				313+		
Zinc, dichloro(4,4-dimethyl-5(((methylamino)carbonyl)oxy)imino)p entanenitrile)-, (T-4)-	58270-08-9	100/10,000	100		313c		
Thiodicarb	59669-26-0			100	313	U410	
Fenarimol	60168-88-9				313		
Propiconazole	60207-90-1				313		
2,3,4,6,7,8-hexachlorodibenzofuran	60851-34-5				313!		
2,4,5-T esters	61792-07-2			1,000			
Cobalt, ((2,2'-(1,2-ethanediy)bis(nitrilomethylidyne))bis(6-fluorophenylato))(2-)-N,N',O,O')-	62207-76-5	100/10,000	100		313c		
Acifluorfen, sodium salt	62476-59-9				313		
Chlorotetrafluoroethane	63938-10-3				313		
Chlorsulfuron	64902-72-3				313		
3,3'-Dichlorobenzidine sulfate	64969-34-2				313		
Fenoxaprop-ethyl	66441-23-4				313		
Hydramethylnon	67485-29-4				313		
1,2,3,4,6,7,8-heptachlorodibenzofuran	67562-39-4				313!		
Cyhalothrin	68085-85-8				313		
Cyfluthrin	68359-37-5				313		
Poly(oxy-1,2-ethanediyl), α-(nonylphenyl)-ω-hydroxy-, branched	68412-54-4				313%		
Fluvalinate	69409-94-5				313		
Fluazifop-butyl	69806-50-4				313		
1,2,3,4,7,8-hexachlorodibenzofuran	70648-26-9				313!		
Abamectin	71751-41-2				313		
Fomesafen	72178-02-0				313		
Fenoxycarb	72490-01-8				313		
1,2,3,7,8,9-hexachlorodibenzofuran	72918-21-9				313!		
Sethoxydim	74051-80-2				313		
4-Methyldiphenylmethane-3,4-diisocyanate	75790-84-0				313#		
2,4'-Diisocyanatodiphenyl sulfide	75790-87-3				313#		
Quizalofop-ethyl	76578-14-8				313		
Benzoic acid, 5-(2-chloro-4-(trifluoromethyl)phenoxy)-2-nitro-, 2-ethoxy-1-methyl-2-oxethyl ester	77501-63-4				313		
Lactofen	77501-63-4				313		
Bifenthrin	82657-04-3				313		
4-Nonylphenol, branched	84852-15-3				313\$		
Myclobutanil	88671-89-0				313		

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NAME	CAS/313 Category Codes	Section 302 (EHS) TPQ	Section 304 EHS RQ	CERCLA RQ	Section 313	RCRA CODE	CAA 112(r) TQ
Dichloro-1,1,2-trifluoroethane	90454-18-5				313		
Nonylphenol, branched	90481-04-2				313\$		
Chlorimuron-ethyl	90982-32-4				313		
Tribenuron methyl	101200-48-0				313		
1,1-Dichloro-1,2,3,3,3-pentafluoropropane	111512-56-2				313		
HCFC-225eb	111512-56-2				X		
3,3'-Dimethoxybenzidine monohydrochloride	111984-09-9				313		
Poly(oxy-1,2-ethanediyl), α-(4-nonylphenyl)-ω-hydroxy-, branched	127087-87-0				313%		
Dichloropentafluoropropane	127564-92-5				313		
2,2-Dichloro-1,1,1,3,3-pentafluoropropane	128903-21-9				313		
HCFC-225aa	128903-21-9				X		
Diethyldiisocyanatobenzene	134190-37-7				313#		
1,3-Dichloro-1,1,2,3,3-pentafluoropropane	136013-79-1				313		
HCFC-225ea	136013-79-1				X		

¹ Phosphorus (yellow or white) is listed on EPCRA section 313 under CAS number 12185-10-3.

Appendix A: Consolidated List of Chemicals by Alphabetical Name[Top](#)**LIST OF LISTS****Appendix A: Consolidated List of Chemicals
(By Alphabetical Name)****SUBJECT TO EPCRA, CERCLA, AND CAA SECTION 112(r)**

NAME	CAS/313 Category Codes	Section 302 (EHS) TPQ	Section 304 EHS RQ	CERCLA RQ	Section 313	RCRA CODE	CAA 112(r) TQ
Abamectin	71751-41-2				313		
Acenaphthene	83-32-9			100			
Acenaphthylene	208-96-8			5,000			
Acephate	30560-19-1				313		
Acetaldehyde	75-07-0			1,000	313	U001	10,000
Acetaldehyde, trichloro-	75-87-6			5,000		U034	
Acetamide	60-35-5			100	313		
Acetic acid	64-19-7			5,000			
Acetic acid, (2,4-dichlorophenoxy)-	94-75-7			100	X	U240	
Acetic acid ethenyl ester	108-05-4	1,000	5,000	5,000	X		15,000
Acetic anhydride	108-24-7			5,000			
Acetone	67-64-1			5,000		U002	
Acetone cyanohydrin	75-86-5	1,000	10	10	X	P069	
Acetone thiosemicarbazide	1752-30-3	1,000/10,000	1,000				
Acetonitrile	75-05-8			5,000	313	U003	
Acetophenone	98-86-2			5,000	313	U004	
2-Acetylaminofluorene	53-96-3			1	313	U005	
Acetyl bromide	506-96-7			5,000			
Acetyl chloride	75-36-5			5,000		U006	
Acetylene	74-86-2						10,000
1-Acetyl-2-thiourea	591-08-2			1,000		P002	
Acifluorfen, sodium salt	62476-59-9				313		
Acrolein	107-02-8	500	1	1	313	P003	5,000
Acrylamide	79-06-1	1,000/10,000	5,000	5,000	313	U007	
Acrylic acid	79-10-7			5,000	313	U008	
Acrylonitrile	107-13-1	10,000	100	100	313	U009	20,000
Acrylyl chloride	814-68-6	100	100				5,000
Adipic acid	124-04-9			5,000			
Adiponitrile	111-69-3	1,000	1,000				
Alachlor	15972-60-8				313		
Aldicarb	116-06-3	100/10,000	1	1	313	P070	
Aldicarb sulfone	1646-88-4			100		P203	
Aldrin	309-00-2	500/10,000	1	1	313	P004	
<i>d-trans</i> -Allethrin	28434-00-6				313		
Allyl alcohol	107-18-6	1,000	100	100	313	P005	15,000
Allylamine	107-11-9	500	500		313		10,000
Allyl chloride	107-05-1			1,000	313		
Aluminum (fume or dust)	7429-90-5				313		
Aluminum oxide (fibrous forms)	1344-28-1				313		
Aluminum phosphide	20859-73-8	500	100	100	313	P006	
Aluminum sulfate	10043-01-3			5,000			
Ametryn	834-12-8				313		

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NAME	CAS/313 Category Codes	Section 302 (EHS) TPQ	Section 304 EHS RQ	CERCLA RQ	Section 313	RCRA CODE	CAA 112(r) TQ
2-Aminoanthraquinone	117-79-3				313		
4-Aminoazobenzene	60-09-3				313		
4-Aminobiphenyl	92-67-1			1	313		
1-Amino-2,4-dibromoanthraquinone	81-49-2				313		
1-Amino-2-methylantraquinone	82-28-0				313		
5-(Aminomethyl)-3-isoxazolol	2763-96-4	500/10,000	1,000	1,000		P007	
Aminopterin	54-62-6	500/10,000	500				
4-Aminopyridine	504-24-5	500/10,000	1,000	1,000		P008	
Amiton	78-53-5	500	500				
Amiton oxalate	3734-97-2	100/10,000	100				
Amitraz	33089-61-1				313		
Amitrole	61-82-5			10	313	U011	
Ammonia	7664-41-7	500	100	100			
Ammonia (anhydrous)	7664-41-7	500	100	100	X		10,000
Ammonia (conc 20% or greater)	7664-41-7			See ammonium hydroxide	X		20,000
Ammonia (includes anhydrous ammonia and aqueous ammonia from water dissociable ammonium salts and other sources; 10 percent of total aqueous ammonia is reportable under this listing)	7664-41-7				313		
Ammonium acetate	631-61-8			5,000			
Ammonium benzoate	1863-63-4			5,000			
Ammonium bicarbonate	1066-33-7			5,000			
Ammonium bichromate	7789-09-5			10	313c		
Ammonium bifluoride	1341-49-7			100			
Ammonium bisulfite	10192-30-0			5,000			
Ammonium carbamate	1111-78-0			5,000			
Ammonium carbonate	506-87-6			5,000			
Ammonium chloride	12125-02-9			5,000			
Ammonium chromate	7788-98-9			10	313c		
Ammonium citrate, dibasic	3012-65-5			5,000			
Ammonium fluoborate	13826-83-0			5,000			
Ammonium fluoride	12125-01-8			100			
Ammonium hydroxide	1336-21-6			1,000	X		
Ammonium oxalate	5972-73-6			5,000			
Ammonium oxalate	6009-70-7			5,000			
Ammonium oxalate	14258-49-2			5,000			
Ammonium picrate	131-74-8			10		P009	
Ammonium silicofluoride	16919-19-0			1,000			
Ammonium sulfamate	7773-06-0			5,000			
Ammonium sulfide	12135-76-1			100			
Ammonium sulfite	10196-04-0			5,000			
Ammonium tartrate	3164-29-2			5,000			
Ammonium tartrate	14307-43-8			5,000			
Ammonium thiocyanate	1762-95-4			5,000			
Ammonium vanadate	7803-55-6			1,000	313c	P119	
Amphetamine	300-62-9	1,000	1,000				
Amyl acetate	628-63-7			5,000			
iso-Amyl acetate	123-92-2			5,000			

US EPA: List of Lists

EPA 550-B-22-001

Appendix A: Consolidated List of Chemicals by Alphabetical Name

NAME	CAS/313 Category Codes	Section 302 (EHS) TPQ	Section 304 EHS RQ	CERCLA RQ	Section 313	RCRA CODE	CAA 112(r) TQ
sec-Amyl acetate	626-38-0			5,000			
tert-Amyl acetate	625-16-1			5,000			
Anilazine	101-05-3				313		
Aniline	62-53-3	1,000	5,000	5,000	313	U012	
Aniline, 2,4,6-trimethyl-	88-05-1	500	500				
o-Anisidine	90-04-0			100	313		
p-Anisidine	104-94-9				313		
o-Anisidine hydrochloride	134-29-2				313		
Anthracene	120-12-7			5,000	313		
Antimony ††	7440-36-0			5,000	313		
Antimony Compounds	N010			&	313		
Antimony pentachloride	7647-18-9			1,000			
Antimony pentafluoride	7783-70-2	500	500		313c		
Antimony potassium tartrate	28300-74-5			100	313c		
Antimony tribromide	7789-61-9			1,000	313c		
Antimony trichloride	10025-91-9			1,000	313c		
Antimony trifluoride	7783-56-4			1,000	313c		
Antimony trioxide	1309-64-4			1,000	313c		
Antimycin A	1397-94-0	1,000/10,000	1,000				
ANTU	86-88-4	500/10,000	100	100		P072	
Aroclor 1016	12674-11-2			1			
Aroclor 1221	11104-28-2			1			
Aroclor 1232	11141-16-5			1			
Aroclor 1242	53469-21-9			1			
Aroclor 1248	12672-29-6			1			
Aroclor 1254	11097-69-1			1			
Aroclor 1260	11096-82-5			1			
Arsenic ††	7440-38-2			1	313		
Arsenic acid	7778-39-4			1	313c	P010	
Arsenic Compounds	N020			&	313		
Arsenic disulfide	12044-79-0			1	313c		
Arsenic pentoxide	1303-28-2	100/10,000	1	1	313c	P011	
Arsenic trioxide	1327-53-3	100/10,000	1	1	313c	P012	
Arsenic trisulfide	1303-33-9			1	313c		
Arsenous oxide	1327-53-3	100/10,000	1	1	313c	P012	
Arsenous trichloride	7784-34-1	500	1	1	313c		15,000
Arsine	7784-42-1	100	100				1,000
Asbestos (friable) †††	1332-21-4			1	313		
Atrazine	1912-24-9				313		
Auramine	492-80-8			100	X	U014	
Azaserine	115-02-6			1		U015	
Azinphos-ethyl	2642-71-9	100/10,000	100				
Azinphos-methyl	86-50-0	10/10,000	1	1			
Aziridine	151-56-4	500	1	1	X	P054	10,000
Aziridine, 2-methyl	75-55-8	10,000	1	1	X	P067	10,000
Barban	101-27-9			10		U280	
Barium	7440-39-3				313		
Barium Compounds	N040				313		
Barium cyanide	542-62-1			10	313c	P013	
Bendiocarb	22781-23-3			100	313	U278	

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NAME	CAS/313 Category Codes	Section 302 (EHS) TPQ	Section 304 EHS RQ	CERCLA RQ	Section 313	RCRA CODE	CAA 112(r) TQ
Bendiocarb phenol	22961-82-6			1,000		U364	
Benezeneamine, 2,6-dinitro-N,N-dipropyl-4-(trifluoromethyl)-	1582-09-8			10	X		
Benfluralin	1861-40-1				313		
Benomyl	17804-35-2			10	313	U271	
Benz[c]acridine	225-51-4			100		U016	
Benzal chloride	98-87-3	500	5,000	5,000	313	U017	
Benzamide	55-21-0				313		
Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)	23950-58-5			5,000	X	U192	
Benz[a]anthracene	56-55-3			10	313+	U018	
Benzenamine, 3-(trifluoromethyl)-	98-16-8	500	500				
Benzene ^a	71-43-2			10	313	U019	
Benzenecetic acid, 4-chloro-.alpha.-(4-chlorophenyl)-.alpha.-hydroxy-, ethyl ester	510-15-6			10	X	U038	
Benzenearsonic acid	98-05-5	10/10,000	10				
Benzene, 1-(chloromethyl)-4-nitro-	100-14-1	500/10,000	500				
Benzene, 2,4-diisocyanato-1-methyl-	584-84-9	500	100	100	X		10,000
Benzene, 1,3-diisocyanato-2-methyl-	91-08-7	100	100	100	X		10,000
Benzene, 1,3-diisocyanatomethyl-	26471-62-5			100	X	U223	10,000
Benzene, m-dimethyl-	108-38-3			1,000	X	U239	
Benzene, o-dimethyl-	95-47-6			1,000	X	U239	
Benzene, p-dimethyl-	106-42-3			100	X	U239	
Benzenethanamine, alpha,alpha-dimethyl-	122-09-8			5,000		P046	
Benzenemethanol, 4-chloro-.alpha.-4-chlorophenyl)-.alpha.-(trichloromethyl)-	115-32-2			10	X		
Benzenesulfonyl chloride	98-09-9			100		U020	
Benzenethiol	108-98-5	500	100	100		P014	
Benzene, 1,1'-(2,2,2-trichloroethylidene)bis [4-methoxy-	72-43-5			1	X	U247	
Benidine	92-87-5			1	313	U021	
Benzimidazole, 4,5-dichloro-2-(trifluoromethyl)-	3615-21-2	500/10,000	500				
Benzo[b]fluoranthene	205-99-2			1	313+		
Benzo[j]fluoranthene	205-82-3				313+		
Benzo[k]fluoranthene	207-08-9			5,000	313+		
Benzoic acid	65-85-0			5,000			
Benzoic acid, 3-amino-2,5-dichloro-	133-90-4			100	X		
Benzoic trichloride	98-07-7	100	10	10	313	U023	
Benzonitrile	100-47-0			5,000			
Benzo[rs]pentaphene	189-55-9			10	313+	U064	
Benzo[g,h,i]perylene	191-24-2			5,000	313		
Benzo[a]phenanthrene	218-01-9			100	313+	U050	
Benzo[a]pyrene	50-32-8			1	313+	U022	
p-Benzoquinone	106-51-4			10	X	U197	
Benzo[trichloride]	98-07-7	100	10	10	X	U023	
Benzoyl chloride	98-88-4			1,000	313		
Benzoyl peroxide	94-36-0				313		

Appendix A: Consolidated List of Chemicals by Alphabetical Name

NAME	CAS/313 Category Codes	Section 302 (EHS) TPQ	Section 304 EHS RQ	CERCLA RQ	Section 313	RCRA CODE	CAA 112(r) TQ
Benzyl chloride	100-44-7	500	100	100	313	P028	
Benzyl cyanide	140-29-4	500	500				
Beryllium ††	7440-41-7			10	313	P015	
Beryllium chloride	7787-47-5			1	313c		
Beryllium Compounds	N050			&	313		
Beryllium fluoride	7787-49-7			1	313c		
Beryllium nitrate	7787-55-5			1	313c		
Beryllium nitrate	13597-99-4			1	313c		
alpha-BHC	319-84-6			10	X		
beta-BHC	319-85-7			1			
delta-BHC	319-86-8			1			
Bicyclo[2.2.1]heptane-2-carbonitrile, 5-chloro-6- (((methylamino)carbonyl)oxy)imino)- ,(1-alpha,2-beta,4-alpha,5-alpha,6E))-	15271-41-7	500/10,000	500				
Bifenthrin	82657-04-3				313		
2,2'-Bioxirane	1464-53-5	500	10	10	X	U085	
Biphenyl	92-52-4			100	313		
2,2-Bis(bromomethyl)-1,3-propanediol	3296-90-0				313		
Bis(2-chloroethoxy) methane	111-91-1			1,000	313	U024	
Bis(2-chloroethyl) ether	111-44-4	10,000	10	10	313	U025	
Bis(chloromethyl) ether	542-88-1	100	10	10	313	P016	1,000
Bis(2-chloro-1-methylethyl)ether	108-60-1			1,000	313	U027	
Bis(chloromethyl) ketone	534-07-6	10/10,000	10				
Bis(2-ethylhexyl)phthalate	117-81-7			100	X	U028	
1,4- Bis(methylisocyanate)cyclohexane	10347-54-3				313#		
1,3- Bis(methylisocyanate)cyclohexane	38661-72-2				313#		
Bis(tributyltin) oxide	56-35-9				313		
Bitoscanate	4044-65-9	500/10,000	500				
Borane, trichloro-	10294-34-5	500	500		X		5,000
Borane, trifluoro-	7637-07-2	500	500		X		5,000
Boron trichloride	10294-34-5	500	500		313		5,000
Boron trifluoride	7637-07-2	500	500		313		5,000
Boron trifluoride compound with methyl ether (1:1)	353-42-4	1,000	1,000				15,000
Boron, trifluoro[oxybis[methane]]-, (T- 4)-	353-42-4	1,000	1,000				15,000
Bromacil	314-40-9				313		
Bromacil, lithium salt	53404-19-6				313		
Bromadiolone	28772-56-7	100/10,000	100				
Bromine	7726-95-6	500	500		313		10,000
Bromoacetone	598-31-2			1,000		P017	
1-Bromo-1-(bromomethyl)-1,3- propanedicarbonitrile	35691-65-7				313		
Bromochlorodifluoromethane	353-59-3				313		
Bromoform	75-25-2			100	313	U225	
Bromomethane	74-83-9	1,000	1,000	1,000	313	U029	
4-Bromophenyl phenyl ether	101-55-3			100		U030	
1-Bromopropane	106-94-5			1	313		

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NAME	CAS/313 Category Codes	Section 302 (EHS) TPQ	Section 304 EHS RQ	CERCLA RQ	Section 313	RCRA CODE	CAA 112(r) TQ
Bromotrifluoroethylene	598-73-2						10,000
Bromotrifluoromethane	75-63-8				313		
Bromoxynil	1689-84-5				313		
Bromoxynil octanoate	1689-99-2				313		
Brucine	357-57-3			100	313	P018	
1,3-Butadiene	106-99-0			10	313		10,000
1,3-Butadiene, 2-methyl-	78-79-5			100			10,000
Butane	106-97-8						10,000
Butane, 2-methyl-	78-78-4						10,000
2-Butenal	4170-30-3	1,000	100	100	X	U053	20,000
2-Butenal, (e)-	123-73-9	1,000	100	100		U053	20,000
Butene	25167-67-3						10,000
1-Butene	106-98-9						10,000
2-Butene	107-01-7						10,000
2-Butene-cis	590-18-1						10,000
2-Butene, 1,4-dichloro-	764-41-0			1	X	U074	
2-Butene, (E)	624-64-6						10,000
2-Butene-trans	624-64-6						10,000
1-Buten-3-yne	689-97-4						10,000
Butyl acetate	123-86-4			5,000			
iso-Butyl acetate	110-19-0			5,000			
sec-Butyl acetate	105-46-4			5,000			
tert-Butyl acetate	540-88-5			5,000			
Butyl acrylate	141-32-2				313		
n-Butyl alcohol	71-36-3			5,000	313	U031	
sec-Butyl alcohol	78-92-2				313		
tert-Butyl alcohol	75-65-0				313		
Butylamine	109-73-9			1,000			
iso-Butylamine	78-81-9			1,000			
sec-Butylamine	513-49-5			1,000			
sec-Butylamine	13952-84-6			1,000			
tert-Butylamine	75-64-9			1,000			
Butyl benzyl phthalate	85-68-7			100			
1,2-Butylene oxide	106-88-7			100	313		
n-Butyl phthalate	84-74-2			10	X	U069	
1-Butyne	107-00-6						10,000
Butyraldehyde	123-72-8				313		
Butyric acid	107-92-6			5,000			
iso-Butyric acid	79-31-2			5,000			
Cacodylic acid	75-60-5			1		U136	
Cadmium ††	7440-43-9			10	313		
Cadmium acetate	543-90-8			10	313c		
Cadmium bromide	7789-42-6			10	313c		
Cadmium chloride	10108-64-2			10	313c		
Cadmium Compounds	N078			&	313		
Cadmium oxide	1306-19-0	100/10,000	100		313c		
Cadmium stearate	2223-93-0	1,000/10,000	1,000		313c		
Calcium arsenate	7778-44-1	500/10,000	1	1	313c		
Calcium arsenite	52740-16-6			1	313c		
Calcium carbide	75-20-7			10			

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Calcium chromate	13765-19-0			10	313c	U032	
Calcium cyanamide	156-62-7			1,000	313		
Calcium cyanide	592-01-8			10	313c	P021	
Calcium dodecylbenzenesulfonate	26264-06-2			1,000			
Calcium hypochlorite	7778-54-3			10			
Campechlor	8001-35-2	500/10,000	1	1	X	P123	
Camphene, octachloro-	8001-35-2	500/10,000	1	1	X	P123	
Cantharidin	56-25-7	100/10,000	100				
Captan	133-06-2			10	313		
Carbachol chloride	51-83-2	500/10,000	500				
Carbamic acid, ethyl ester	51-79-6			100	X	U238	
Carbamic acid, methyl-, O-(((2,4-dimethyl-1,3-dithiolan-2-yl)methylene)amino)-	26419-73-8	100/10,000	100	100		P185	
Carbamothioic acid, bis(1-methylethyl)-S-(2,3-dichloro-2-propenyl)ester	2303-16-4			100	X	U062	
Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester	52888-80-9			5,000		U387	
Carbaryl	63-25-2			100	313	U279	
Carbendazim	10605-21-7			10		U372	
Carbofuran	1563-66-2	10/10,000	10	10	313	P127	
Carbofuran phenol	1563-38-8			10		U367	
Carbon disulfide	75-15-0	10,000	100	100	313	P022	20,000
Carbonic difluoride	353-50-4			1,000		U033	
Carbonic dichloride	75-44-5	10	10	10	X	P095	500
Carbonochloridic acid, methylester	79-22-1	500	1,000	1,000	X	U156	5,000
Carbonochloridic acid, 1-methylethyl ester	108-23-6	1,000	1,000				15,000
Carbonochloridic acid, propylester	109-61-5	500	500				15,000
Carbon oxide sulfide (COS)	463-58-1			100	X		10,000
Carbon tetrachloride	56-23-5			10	313	U211	
Carbonyl sulfide	463-58-1			100	313		10,000
Carbophenothion	786-19-6	500	500				
Carbosulfan	55285-14-8			1,000		P189	
Carboxin	5234-68-4				313		
Catechol	120-80-9			100	313		
CFC-11	75-69-4			5,000	X	U121	
CFC-12	75-71-8			5,000	X	U075	
CFC-114	76-14-2				X		
CFC-115	76-15-3				X		
CFC-13	75-72-9				X		
Chinomethionat	2439-01-2				313		
Chloramben	133-90-4			100	313		
Chlorambucil	305-03-3			10		U035	
Chlordane	57-74-9	1,000	1	1	313	U036	
Chlordane, alpha isomer	5103-71-9	1,000	1	1	313	U036	
Chlordane, gamma isomer	5103-74-2	1,000	1	1	313	U036	
Chlordane (Technical Mixture and Metabolites)	57-74-9			1		U036	
Chlorendic acid	115-28-6				313		

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Chlorfenvinfos	470-90-6	500	500				
Chlorimuron-ethyl	90982-32-4				313		
Chlorinated Benzenes	N.A.			&			
Chlorinated Ethanes	N.A.			&			
Chlorinated Naphthalene	N.A.			&			
Chlorinated Phenols	N084			&	313		
Chlorine	7782-50-5	100	10	10	313		2,500
Chlorine dioxide	10049-04-4				313		1,000
Chlorine monoxide	7791-21-1						10,000
Chlorine oxide	7791-21-1						10,000
Chlorine oxide (ClO ₂)	10049-04-4				X		1,000
Chlormephos	24934-91-6	500	500				
Chlormequat chloride	999-81-5	100/10,000	100				
Chlornaphazine	494-03-1			100		U026	
Chloroacetaldehyde	107-20-0			1,000		P023	
Chloroacetic acid	79-11-8	100/10,000	100	100	313		
2-Chloroacetophenone	532-27-4			100	313		
Chloroalkyl Ethers	N.A.			&			
1-(3-Chloroallyl)-3,5,7-triaza-1- azoniaadamantane chloride	4080-31-3				313		
p-Chloroaniline	106-47-8			1,000	313	P024	
Chlorobenzene	108-90-7			100	313	U037	
Chlorobenzilate	510-15-6			10	313	U038	
2-Chloro-N-(2-chloroethyl)-N- methylethanamine	51-75-2	10	10		X		
p-Chloro-m-cresol	59-50-7			5,000		U039	
2,4-D chlorocrotyl ester	2971-38-2			100	313		
Chlorodibromomethane	124-48-1			100			
1-Chloro-1,1-difluoroethane	75-68-3				313		
Chlorodifluoromethane	75-45-6				313		
Chloroethane	75-00-3			100	313		10,000
Chloroethanol	107-07-3	500	500				
Chloroethyl chloroformate	627-11-2	1,000	1,000				
2-Chloroethyl vinyl ether	110-75-8			1,000		U042	
Chloroform	67-66-3	10,000	10	10	313	U044	20,000
Chloromethane	74-87-3			100	313	U045	10,000
Chloromethyl ether	542-88-1	100	10	10	X	P016	1,000
Chloromethyl methyl ether	107-30-2	100	10	10	313	U046	5,000
3-Chloro-2-methyl-1-propene	563-47-3				313		
2-Chloronaphthalene	91-58-7			5,000		U047	
Chlorophacinone	3691-35-8	100/10,000	100				
2-Chlorophenol	95-57-8			100		U048	
Chlorophenols	N084			&	313		
p-Chlorophenyl isocyanate	104-12-1				313		
4-Chlorophenyl phenyl ether	7005-72-3			5,000			
Chloropicrin	76-06-2				313		
Chloroprene	126-99-8			100	313		
3-Chloropropionitrile	542-76-7	1,000	1,000	1,000	313	P027	
2-Chloropropylene	557-98-2						10,000
1-Chloropropylene	590-21-6						10,000

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Chlorosulfonic acid	7790-94-5			1,000			
Chlorotetrafluoroethane	63938-10-3				313		
1-Chloro-1,1,2,2-tetrafluoroethane	354-25-6				313		
2-Chloro-1,1,1,2-tetrafluoroethane	2837-89-0				313		
Chlorothalonil	1897-45-6				313		
<i>p</i> -Chloro- <i>o</i> -toluidine	95-69-2				313		
4-Chloro- <i>o</i> -toluidine, hydrochloride	3165-93-3			100		U049	
2-Chloro-1,1,1-trifluoroethane	75-88-7				313		
Chlorotrifluoromethane	75-72-9				313		
3-Chloro-1,1,1-trifluoropropane	460-35-5				313		
Chloroxuron	1982-47-4	500/10,000	500				
Chlorpyrifos	2921-88-2			1			
Chlorpyrifos-methyl	5598-13-0				313		
Chlorsulfuron	64902-72-3				313		
Chlorthiophos	21923-23-9	500	500				
Chromic acetate	1066-30-4			1,000	313c		
Chromic acid	7738-94-5			10	313c		
Chromic chloride	10025-73-7	1/10,000	1		313c		
Chromic sulfate	10101-53-8			1,000	313c		
Chromium ++	7440-47-3			5,000	313		
Chromium Compounds	N090			&	313		
Chromous chloride	10049-05-5			1,000	313c		
Chrysene	218-01-9			100	X	U050	
C.I. Acid Green 3	4680-78-8				313		
C.I. Acid Red 114	6459-94-5				313		
C.I. Basic Green 4	569-64-2				313		
C.I. Basic Red 1	989-38-8				313		
C.I. Direct Black 38	1937-37-7				313		
C.I. Direct Blue 218	28407-37-6				313		
C.I. Direct Blue 6	2602-46-2				313		
C.I. Direct Brown 95	16071-86-6				313		
C.I. Disperse Yellow 3	2832-40-8				313		
C.I. Food Red 5	3761-53-3				313		
C.I. Food Red 15	81-88-9				313		
C.I. Solvent Orange 7	3118-97-6				313		
C.I. Solvent Yellow 3	97-56-3				313		
C.I. Solvent Yellow 14	842-07-9				313		
C.I. Solvent Yellow 34	492-80-8			100	313	U014	
C.I. Vat Yellow 4	128-66-5				313		
Cobalt	7440-48-4				313		
Cobalt carbonyl	10210-68-1	10/10,000	10		313c		
Cobalt Compounds	N096			&	313		
Cobalt, ((2,2'-(1,2-ethanediy)bis(nitrilomethylidene))bis(6-fluorophenylato))(2-)-N,N',O,O')-	62207-76-5	100/10,000	100		313c		
Cobaltous bromide	7789-43-7			1,000	313c		
Cobaltous formate	544-18-3			1,000	313c		
Cobaltous sulfamate	14017-41-5			1,000	313c		
Coke Oven Emissions	N.A.			1			
Colchicine	64-86-8	10/10,000	10				

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Copper ††	7440-50-8			5,000	313		
Copper Compounds	N100			&	313		
Copper cyanide	544-92-3			10	313c	P029	
Coumaphos	56-72-4	100/10,000	10	10			
Coumatetralyl	5836-29-3	500/10,000	500				
Creosote	N.A.			1		U051	
Creosote	8001-58-9				313		
<i>p</i> -Cresidine	120-71-8				313		
<i>m</i> -Cresol	108-39-4			100	313	U052	
<i>o</i> -Cresol	95-48-7	1,000/10,000	100	100	313	U052	
<i>p</i> -Cresol	106-44-5			100	313	U052	
Cresol (mixed isomers)	1319-77-3			100	313	U052	
Crimidine	535-89-7	100/10,000	100				
Crotonaldehyde	4170-30-3	1,000	100	100	313	U053	20,000
Crotonaldehyde, (E)-	123-73-9	1,000	100	100		U053	20,000
Cumene	98-82-8			5,000	313	U055	
Cumene hydroperoxide	80-15-9			10	313	U096	
Cupferron	135-20-6				313		
Cupric acetate	142-71-2			100	313c		
Cupric acetoarsenite	12002-03-8	500/10,000	1	1	313c		
Cupric chloride	7447-39-4			10	313c		
Cupric nitrate	3251-23-8			100	313c		
Cupric oxalate	55671-32-4			100	313c		
Cupric sulfate	7758-98-7			10	313c		
Cupric sulfate, ammoniated	10380-29-7			100	313c		
Cupric tartrate	815-82-7			100	313c		
Cyanazine	21725-46-2				313		
Cyanide Compounds	N106			&	313		
Cyanides (soluble salts and complexes), not otherwise specified	N.A.			10	313c	P030	
Cyanogen	460-19-5			100		P031	10,000
Cyanogen bromide	506-68-3	500/10,000	1,000	1,000	313c	U246	
Cyanogen chloride	506-77-4			10	313c	P033	10,000
Cyanogen iodide	506-78-5	1,000/10,000	1,000		313c		
Cyanophos	2636-26-2	1,000	1,000				
Cyanuric fluoride	675-14-9	100	100		313c		
Cycloate	1134-23-2				313		
Cyclohexanamine	108-91-8	10,000	10,000				15,000
Cyclohexane	110-82-7			1,000	313	U056	
1,4-Cyclohexane diisocyanate	2556-36-7				313#		
Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1.alpha.,2.alpha.,3.beta.,4.alpha.,5.alpha.,6.beta.)-	58-89-9	1,000/10,000	1	1	X	U129	
Cyclohexanol	108-93-0				313		
Cyclohexanone	108-94-1			5,000		U057	
Cycloheximide	66-81-9	100/10,000	100				
Cyclohexylamine	108-91-8	10,000	10,000				15,000
2-Cyclohexyl-4,6-dinitrophenol	131-89-5			100		P034	
Cyclophosphamide	50-18-0			10		U058	
Cyclopropane	75-19-4						10,000

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Cyfluthrin	68359-37-5				313		
Cyhalothrin	68085-85-8				313		
2,4-D	94-75-7			100	313	U240	
2,4-D Acid	94-75-7			100	X	U240	
2,4-D 2-butoxyethyl ester	1929-73-3			100	313		
2,4-D butyl ester	94-80-4			100	313		
2,4-D Esters	94-11-1			100	X		
2,4-D Esters	94-79-1			100			
2,4-D Esters	94-80-4			100	X		
2,4-D Esters	1320-18-9			100	X		
2,4-D Esters	1928-38-7			100			
2,4-D Esters	1928-61-6			100			
2,4-D Esters	1929-73-3			100	X		
2,4-D Esters	2971-38-2			100	X		
2,4-D Esters	25168-26-7			100			
2,4-D Esters	53467-11-1			100			
2,4-D isopropyl ester	94-11-1			100	313		
2,4-D propylene glycol butyl ether ester	1320-18-9			100	313		
2,4-D, salts and esters	94-75-7			100		U240	
Daunomycin	20830-81-3			10		U059	
Dazomet	533-74-4				313		
Dazomet, sodium salt	53404-60-7				313		
2,4-DB	94-82-6				313		
DBCP	96-12-8			1	X	U066	
DDD	72-54-8			1		U060	
DDE ^b	72-55-9			1			
DDE ^b	3547-04-4			5,000			
DDT	50-29-3			1		U061	
DDT and Metabolites	N.A.			&			
Decaborane(14)	17702-41-9	500/10,000	500				
Decabromodiphenyl oxide	1163-19-5				313		
DEHP	117-81-7			100	X	U028	
Demeton	8065-48-3	500	500				
Demeton-S-methyl	919-86-8	500	500				
Desmedipham	13684-56-5				313		
2,4-D 2-ethylhexyl ester	1928-43-4				313		
2,4-D 2-ethyl-4-methylpentyl ester	53404-37-8				313		
Dialifor	10311-84-9	100/10,000	100				
Diallate	2303-16-4			100	313	U062	
2,4-Diaminoanisole	615-05-4				313		
2,4-Diaminoanisole sulfate	39156-41-7				313		
4,4'-Diaminodiphenyl ether	101-80-4				313		
Diaminotoluene	496-72-0			10		U221	
Diaminotoluene	823-40-5			10		U221	
2,4-Diaminotoluene	95-80-7			10	313		
Diaminotoluene (mixed isomers)	25376-45-8			10	313	U221	
Diazinon	333-41-5			1	313		
Diazomethane	334-88-3			100	313		
Dibenz[a,h]acridine	226-36-8				313+		

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Dibenz[a,j]acridine	224-42-0				313+		
Dibenz[a,h]anthracene	53-70-3			1	313+	U063	
7H-Dibenzo[c,g]carbazole	194-59-2				313+		
Dibenzo[a,e]fluoranthene	5385-75-1				313+		
Dibenzofuran	132-64-9			100	313		
Dibenzo[a,e]pyrene	192-65-4				313+		
Dibenzo[a,h]pyrene	189-64-0				313+		
Dibenzo[a,l]pyrene	191-30-0				313+		
Dibenz[a,i]pyrene	189-55-9			10	X	U064	
Diborane	19287-45-7	100	100				2,500
Diborane(6)	19287-45-7	100	100				2,500
1,2-Dibromo-3-chloropropane	96-12-8			1	313	U066	
1,2-Dibromoethane	106-93-4			1	313	U067	
2,2-Dibromo-3-nitrilopropionamide	10222-01-2				313s		
Dibromotetrafluoroethane	124-73-2				313		
Dibutyl phthalate	84-74-2			10	313	U069	
Dibutyltin dichloride	683-18-1				313		
Dicamba	1918-00-9			1,000	313		
Dichlobenil	1194-65-6			100			
Dichlone	117-80-6			1			
Dichloran	99-30-9				313		
o-Dichlorobenzene	95-50-1			100	X	U070	
Dichlorobenzene	25321-22-6			100	X		
1,2-Dichlorobenzene	95-50-1			100	313	U070	
1,3-Dichlorobenzene	541-73-1			100	313	U071	
1,4-Dichlorobenzene	106-46-7			100	313	U072	
Dichlorobenzene (mixed isomers)	25321-22-6			100	313		
Dichlorobenzidine	1331-47-1			&			
3,3'-Dichlorobenzidine	91-94-1			1	313	U073	
3,3'-Dichlorobenzidine dihydrochloride	612-83-9				313		
3,3'-Dichlorobenzidine sulfate	64969-34-2				313		
Dichlorobromomethane	75-27-4			5,000	313		
trans-1,4-Dichloro-2-butene	110-57-6	500	500		313		
trans-1,4-Dichlorobutene	110-57-6	500	500		X		
1,4-Dichloro-2-butene	764-41-0			1	313	U074	
1,2-Dichloro-1,1-difluoroethane	1649-08-7				313		
Dichlorodifluoromethane	75-71-8			5,000	313	U075	
1,1-Dichloroethane	75-34-3			1,000	X	U076	
1,2-Dichloroethane	107-06-2			100	313	U077	
1,1-Dichloroethylene	75-35-4			100	X	U078	10,000
1,2-Dichloroethylene	156-60-5			1,000		U079	
1,2-Dichloroethylene	540-59-0				313		
Dichloroethyl ether	111-44-4	10,000	10	10	X	U025	
1,1-Dichloro-1-fluoroethane	1717-00-6				313		
Dichlorofluoromethane	75-43-4				313		
Dichloroisopropyl ether	108-60-1			1,000	X	U027	
Dichloromethane	75-09-2			1,000	313	U080	
3,6-Dichloro-2-methoxybenzoic acid	1918-00-9			1,000	X		
Dichloromethyl ether	542-88-1	100	10	10	X	P016	1,000
Dichloromethylphenylsilane	149-74-6	1,000	1,000				

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NAME	CAS/313 Category Codes	Section 302 (EHS) TPQ	Section 304 EHS RQ	CERCLA RQ	Section 313	RCRA CODE	CAA 112(r) TQ
Dichloropentafluoropropane	127564-92-5				313		
2,2-Dichloro-1,1,1,3,3- pentafluoropropane	128903-21-9				313		
2,3-Dichloro-1,1,1,2,3- pentafluoropropane	422-48-0				313		
1,2-Dichloro-1,1,2,3,3- pentafluoropropane	422-44-6				313		
3,3-Dichloro-1,1,1,2,2- pentafluoropropane	422-56-0				313		
1,3-Dichloro-1,1,2,2,3- pentafluoropropane	507-55-1				313		
1,1-Dichloro-1,2,2,3,3- pentafluoropropane	13474-88-9				313		
1,2-Dichloro-1,1,3,3,3- pentafluoropropane	431-86-7				313		
1,3-Dichloro-1,1,2,3,3- pentafluoropropane	136013-79-1				313		
1,1-Dichloro-1,2,3,3,3- pentafluoropropane	111512-56-2				313		
Dichlorophene	97-23-4				313		
2,6-Dichlorophenol	87-65-0			100		U082	
2,4-Dichlorophenol	120-83-2			100	313	U081	
Dichlorophenylarsine	696-28-6	500	1	1		P036	
Dichloropropane	26638-19-7			1,000			
Dichloropropane - Dichloropropene (mixture)	8003-19-8			100			
1,1-Dichloropropane	78-99-9			1,000			
1,2-Dichloropropane	78-87-5			1,000	313	U083	
1,3-Dichloropropane	142-28-9			1,000			
1,3-Dichloro-2-propanol	96-23-1				313		
Dichloropropene	26952-23-8			100			
1,3-Dichloropropene	542-75-6			100	X	U084	
<i>trans</i> -1,3-Dichloropropene	10061-02-6				313		
2,3-Dichloropropene	78-88-6			100	313		
2,2-Dichloropropionic acid	75-99-0			5,000			
1,3-Dichloropropylene	542-75-6			100	313	U084	
Dichlorosilane	4109-96-0						10,000
Dichlorotetrafluoroethane	76-14-2				313		
Dichlorotrifluoroethane	34077-87-7				313		
Dichloro-1,1,2-trifluoroethane	90454-18-5				313		
1,1-Dichloro-1,2,2-trifluoroethane	812-04-4				313		
1,2-Dichloro-1,1,2-trifluoroethane	354-23-4				313		
2,2-Dichloro-1,1,1-trifluoroethane	306-83-2				313		
Dichlorvos	62-73-7	1,000	10	10	313		
Diclofop methyl	51338-27-3				313		
Dicofol	115-32-2			10	313		
Dicrotophos	141-66-2	100	100				
Dicyclopentadiene	77-73-6				313		
Dieldrin	60-57-1			1		P037	
Diepoxybutane	1464-53-5	500	10	10	313	U085	
Diethanolamine	111-42-2			100	313		

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Diethatyl ethyl	38727-55-8				313		
Diethylamine	109-89-7			100			
N,N-Diethylaniline	91-66-7			1,000			
Diethylarsine	692-42-2			1		P038	
Diethyl chlorophosphate	814-49-3	500	500				
Diethyldiisocyanatobenzene	134190-37-7				313#		
Di(2-ethylhexyl) phthalate	117-81-7			100	313	U028	
O,O-Diethyl S-methyl dithiophosphate	3288-58-2			5,000		U087	
Diethyl-p-nitrophenyl phosphate	311-45-5			100		P041	
Diethyl phthalate	84-66-2			1,000		U088	
O,O-Diethyl O-pyrazinyl phosphorothioate	297-97-2	500	100	100		P040	
Diethylstilbestrol	56-53-1			1		U089	
Diethyl sulfate	64-67-5			10	313		
Diflubenzuron	35367-38-5				313		
Difluoroethane	75-37-6						10,000
Digitoxin	71-63-6	100/10,000	100				
Diglycidyl ether	2238-07-5	1,000	1,000				
Diglycidyl resorcinol ether	101-90-6				313		
Digoxin	20830-75-5	10/10,000	10				
Dihydrosafrole	94-58-6			10	313	U090	
Diisocyanates (includes only 20 chemicals)	N120				313		
4,4'-Diisocyanatodiphenyl ether	4128-73-8				313#		
2,4'-Diisocyanatodiphenyl sulfide	75790-87-3				313#		
Diisopropylfluorophosphate	55-91-4	100	100	100		P043	
Dimefox	115-26-4	500	500				
1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro- 1,4,4a,5,8,8a-hexahydro- (1.alpha.,4.alpha.,4a.beta.,5.alpha.,8. alpha.,8a.beta.)-	309-00-2	500/10,000	1	1	X	P004	
Dimethipin	55290-64-7				313		
Dimethoate	60-51-5	500/10,000	10	10	313	P044	
3,3'-Dimethoxybenzidine	119-90-4			100	313	U091	
3,3'-Dimethoxybenzidine dihydrochloride	20325-40-0				313		
3,3'-Dimethoxybenzidine-4,4'- diisocyanate	91-93-0				313#		
3,3'-Dimethoxybenzidine monohydrochloride	111984-09-9				313		
Dimethylamine	124-40-3			1,000	313	U092	10,000
Dimethylamine dicamba	2300-66-5				313		
4-Dimethylaminoazobenzene	60-11-7			10	313	U093	
Dimethylaminoazobenzene	60-11-7			10	X	U093	
N,N-Dimethylaniline	121-69-7			100	313		
7,12-Dimethylbenz[a]anthracene	57-97-6			1	313+	U094	
3,3'-Dimethylbenzidine	119-93-7			10	313	U095	
3,3'-Dimethylbenzidine dihydrochloride	612-82-8				313		
3,3'-Dimethylbenzidine dihydrofluoride	41766-75-0				313		

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NAME	CAS/313 Category Codes	Section 302 (EHS) TPQ	Section 304 EHS RQ	CERCLA RQ	Section 313	RCRA CODE	CAA 112(r) TQ
2,2-Dimethyl-1,3-benzodioxol-4-ol methylcarbamate	22781-23-3			100	X	U278	
Dimethylcarbamoyl chloride	79-44-7			1	313	U097	
Dimethyl chlorothiophosphate	2524-03-0	500	500		313		
Dimethyldichlorosilane	75-78-5	500	500				5,000
3,3'-Dimethyl-4,4'-diphenylene diisocyanate	91-97-4				313#		
3,3'-Dimethyldiphenylmethane-4,4'- diisocyanate	139-25-3				313#		
Dimethylformamide	68-12-2			100	X		
<i>N,N</i> -Dimethylformamide	68-12-2			100	313		
1,1-Dimethylhydrazine	57-14-7	1,000	10	10	313	U098	15,000
Dimethylhydrazine	57-14-7	1,000	10	10	X	U098	15,000
2,4-Dimethylphenol	105-67-9			100	313	U101	
Dimethyl-p-phenylenediamine	99-98-9	10/10,000	10				
Dimethyl phosphorochloridothioate	2524-03-0	500	500		X		
Dimethyl phthalate	131-11-3			5,000	313	U102	
2,2-Dimethylpropane	463-82-1						10,000
Dimethyl sulfate	77-78-1	500	100	100	313	U103	
Dimetilan	644-64-4	500/10,000	1	1		P191	
Dinitrobenzene (mixed isomers)	25154-54-5			100			
<i>m</i> -Dinitrobenzene	99-65-0			100	313		
<i>o</i> -Dinitrobenzene	528-29-0			100	313		
<i>p</i> -Dinitrobenzene	100-25-4			100	313		
Dinitrobutyl phenol	88-85-7	100/10,000	1,000	1,000	313	P020	
4,6-Dinitro- <i>o</i> -cresol	534-52-1	10/10,000	10	10	313	P047	
Dinitrocresol	534-52-1	10/10,000	10	10	X	P047	
4,6-Dinitro- <i>o</i> -cresol and salts	534-52-1			10		P047	
Dinitrophenol	25550-58-7			10			
2,4-Dinitrophenol	51-28-5			10	313	P048	
2,5-Dinitrophenol	329-71-5			10			
2,6-Dinitrophenol	573-56-8			10			
1,6-Dinitropyrene	42397-64-8				313+		
1,8-Dinitropyrene	42397-65-9				313+		
Dinitrotoluene (mixed isomers)	25321-14-6			10	313		
2,4-Dinitrotoluene	121-14-2			10	313	U105	
2,6-Dinitrotoluene	606-20-2			100	313	U106	
3,4-Dinitrotoluene	610-39-9			10			
Dinocap	39300-45-3				313		
Dinoseb	88-85-7	100/10,000	1,000	1,000	X	P020	
Dinoterb	1420-07-1	500/10,000	500				
Di- <i>n</i> -octyl phthalate	117-84-0			5,000		U107	
<i>n</i> -Diocetylphthalate	117-84-0			5,000		U107	
1,4-Dioxane	123-91-1			100	313	U108	
Dioxathion	78-34-2	500	500				
Dioxin and dioxin-like compounds (includes only 17 chemicals)	N150				313		
Diphacinone	82-66-6	10/10,000	10				
Diphenamid	957-51-7				313		
Diphenylamine	122-39-4				313		

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1,2-Diphenylhydrazine	122-66-7			10	313	U109	
Diphenylhydrazine	38622-18-3			&			
Diphosphoramidate, octamethyl-	152-16-9	100	100	100		P085	
Dipotassium endothall	2164-07-0				313		
Dipropylamine	142-84-7			5,000		U110	
Dipropyl isocinchomeronate	136-45-8				313		
Di-n-propylnitrosamine	621-64-7			10	X	U111	
Diquat	85-00-7			1,000			
Diquat	2764-72-9			1,000			
Disodium cyanodithioimidocarbonate	138-93-2				313		
Disulfoton	298-04-4	500	1	1		P039	
Dithiazanine iodide	514-73-8	500/10,000	500				
Dithiobiuret	541-53-7	100/10,000	100	100	X	P049	
2,4-Dithiobiuret	541-53-7	100/10,000	100	100	313	P049	
Diuron	330-54-1			100	313		
Dodecylbenzenesulfonic acid	27176-87-0			1,000			
Dodine	2439-10-3				313		
2,4-DP	120-36-5				313		
2,4-D sodium salt	2702-72-9				313		
Emetine, dihydrochloride	316-42-7	1/10,000	1				
Endosulfan	115-29-7	10/10,000	1	1		P050	
alpha - Endosulfan	959-98-8			1			
beta - Endosulfan	33213-65-9			1			
Endosulfan and Metabolites	N.A.			&			
Endosulfan sulfate	1031-07-8			1			
Endothall	145-73-3			1,000		P088	
Endothion	2778-04-3	500/10,000	500				
Endrin	72-20-8	500/10,000	1	1		P051	
Endrin aldehyde	7421-93-4			1			
Endrin and Metabolites	N.A.			&			
Epichlorohydrin	106-89-8	1,000	100	100	313	U041	20,000
Epinephrine	51-43-4			1,000		P042	
EPN	2104-64-5	100/10,000	100				
Ergocalciferol	50-14-6	1,000/10,000	1,000				
Ergotamine tartrate	379-79-3	500/10,000	500				
Ethanamine	75-04-7			100			10,000
Ethane	74-84-0						10,000
Ethane, chloro-	75-00-3			100	X		10,000
1,2-Ethanediamine	107-15-3	10,000	5,000	5,000			20,000
Ethane, 1,1-difluoro-	75-37-6						10,000
Ethanedinitrile	460-19-5			100		P031	10,000
Ethane, 1,1'-oxybis-	60-29-7			100		U117	10,000
Ethaneperoxoic acid	79-21-0	500	500		X		10,000
Ethanesulfonyl chloride, 2-chloro-	1622-32-8	500	500				
Ethane, 1,1,1,2-tetrachloro-	630-20-6			100	X	U208	
Ethane, 1,1'-thiobis[2-chloro-	505-60-2	500	500		X		
Ethanethiol	75-08-1						10,000
Ethanimidothioic acid, 2-(dimethylamino)-N-hydroxy-2-oxo-, methyl ester	30558-43-1			5,000		U394	

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Ethanimidothioic acid, N- [[methylamino)carbonyl]	16752-77-5	500/10,000	100	100		P066	
Ethanol, 1,2-dichloro-, acetate	10140-87-1	1,000	1,000				
Ethanol, 2-ethoxy-	110-80-5			1,000	X	U359	
Ethanol, 2-(nonylphenoxy)-	27986-36-3				313%		
Ethanol, 2-[2-(nonylphenoxy)ethoxy]-	27176-93-8				313%		
Ethanol, 2-[2-(4-nonylphenoxy)ethoxy]-	20427-84-3				313%		
Ethanol, 2-[2-[2-(4-nonylphenoxy)ethoxy]ethoxy]ethoxy]-	7311-27-5				313%		
Ethanol, 2,2'-oxybis-, dicarbamate	5952-26-1			5,000		U395	
Ethene	74-85-1				X		10,000
Ethene, bromotrifluoro-	598-73-2						10,000
Ethene, chloro-	75-01-4			1	X	U043	10,000
Ethene, chlorotrifluoro-	79-38-9						10,000
Ethene, 1,1-dichloro-	75-35-4			100	X	U078	10,000
Ethene, 1,1-difluoro-	75-38-7						10,000
Ethene, ethoxy-	109-92-2						10,000
Ethene, fluoro-	75-02-5						10,000
Ethene, methoxy-	107-25-5						10,000
Ethene, tetrafluoro-	116-14-3						10,000
Ethion	563-12-2	1,000	10	10			
Ethoprop	13194-48-4	1,000	1,000		313		
Ethoprophos	13194-48-4	1,000	1,000		X		
2-Ethoxyethanol	110-80-5			1,000	313	U359	
Ethyl acetate	141-78-6			5,000		U112	
Ethyl acetylene	107-00-6						10,000
Ethyl acrylate	140-88-5			1,000	313	U113	
Ethylbenzene	100-41-4			1,000	313		
Ethylbis(2-chloroethyl)amine	538-07-8	500	500				
Ethyl carbamate	51-79-6			100	X	U238	
Ethyl chloride	75-00-3			100	X		10,000
Ethyl chloroformate	541-41-3				313		
Ethyl cyanide	107-12-0	500	10	10		P101	10,000
S-Ethyl dipropylthiocarbamate	759-94-4				313		
Ethylene	74-85-1				313		10,000
Ethylenebisdithiocarbamic acid, salts and esters	N171				313		
Ethylenebisdithiocarbamic acid, salts & esters	111-54-6			5,000	X	U114	
Ethylenediamine	107-15-3	10,000	5,000	5,000			20,000
Ethylenediamine-tetraacetic acid (EDTA)	60-00-4			5,000			
Ethylene dibromide	106-93-4			1	X	U067	
Ethylene dichloride	107-06-2			100	X	U077	
Ethylene fluorohydrin	371-62-0	10	10				
Ethylene glycol	107-21-1			5,000	313		
Ethyleneimine	151-56-4	500	1	1	313	P054	10,000
Ethylene oxide	75-21-8	1,000	10	10	313	U115	10,000
Ethylene thiourea	96-45-7			10	313	U116	
Ethyl ether	60-29-7			100		U117	10,000

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Ethylidene dichloride	75-34-3			1,000	313	U076	
Ethyl mercaptan	75-08-1						10,000
Ethyl methacrylate	97-63-2			1,000		U118	
Ethyl methanesulfonate	62-50-0			1		U119	
Ethyl nitrite	109-95-5						10,000
Ethylthiocyanate	542-90-5	10,000	10,000				
Ethyne	74-86-2						10,000
Famphur	52-85-7			1,000	313	P097	
Fenamiphos	22224-92-6	10/10,000	10				
Fenarimol	60168-88-9				313		
Fenbutatin oxide	13356-08-6				313		
Fenoxaprop-ethyl	66441-23-4				313		
Fenoxycarb	72490-01-8				313		
Fenpropathrin	39515-41-8				313		
Fensulfothion	115-90-2	500	500				
Fenthion	55-38-9				313		
Fenvalerate	51630-58-1				313		
Ferbam	14484-64-1				313		
Ferric ammonium citrate	1185-57-5			1,000			
Ferric ammonium oxalate	2944-67-4			1,000			
Ferric ammonium oxalate	55488-87-4			1,000			
Ferric chloride	7705-08-0			1,000			
Ferric fluoride	7783-50-8			100			
Ferric nitrate	10421-48-4			1,000			
Ferric sulfate	10028-22-5			1,000			
Ferrous ammonium sulfate	10045-89-3			1,000			
Ferrous chloride	7758-94-3			100			
Ferrous sulfate	7720-78-7			1,000			
Ferrous sulfate	7782-63-0			1,000			
Fine mineral fibers ^c	N.A.			&			
Fluazifop-butyl	69806-50-4				313		
Fluenetil	4301-50-2	100/10,000	100				
Fluometuron	2164-17-2				313		
Fluoranthene	206-44-0			100	X	U120	
Fluorene	86-73-7			5,000			
Fluorine	7782-41-4	500	10	10	313	P056	1,000
Fluoroacetamide	640-19-7	100/10,000	100	100		P057	
Fluoroacetic acid	144-49-0	10/10,000	10				
Fluoroacetic acid, sodium salt	62-74-8	10/10,000	10	10	X	P058	
Fluoroacetyl chloride	359-06-8	10	10				
Fluorouracil	51-21-8	500/10,000	500		313		
5-Fluorouracil	51-21-8	500/10,000	500		X		
Fluvalinate	69409-94-5				313		
Folpet	133-07-3				313		
Fomesafen	72178-02-0				313		
Fonofos	944-22-9	500	500				
Formaldehyde	50-00-0	500	100	100	313	U122	15,000
Formaldehyde cyanohydrin	107-16-4	1,000	1,000				
Formaldehyde (solution)	50-00-0	500	100	100	X	U122	15,000
Formamide	75-12-7				313		

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Formetanate hydrochloride	23422-53-9	500/10,000	100	100		P198	
Formic acid	64-18-6			5,000	313	U123	
Formic acid, methyl ester	107-31-3						10,000
Formothion	2540-82-1	100	100				
Formparanate	17702-57-7	100/10,000	100	100		P197	
Fosthietan	21548-32-3	500	500				
Freon 113	76-13-1				313		
Fuberidazole	3878-19-1	100/10,000	100				
Fumaric acid	110-17-8			5,000			
Furan	110-00-9	500	100	100	313	U124	5,000
Furan, tetrahydro-	109-99-9			1,000		U213	
Furfural	98-01-1			5,000		U125	
Gallium trichloride	13450-90-3	500/10,000	500				
Glycidol	556-52-5				313		
Glycidylaldehyde	765-34-4			10		U126	
Glycol Ethers ^d	N230			&	313		
Guanidine, N-methyl-N'-nitro-N-nitroso-	70-25-7			10		U163	
Guthion	86-50-0	10/10,000	1	1			
Haloethers	N.A.			&			
Halomethanes	N.A.			&			
Halon 1211	353-59-3				X		
Halon 1301	75-63-8				X		
Halon 2402	124-73-2				X		
HCFC-121	354-14-3				X		
HCFC-121a	354-11-0				X		
HCFC-123	306-83-2				X		
HCFC-123a	354-23-4				X		
HCFC-123b	812-04-4				X		
HCFC-124	2837-89-0				X		
HCFC-124a	354-25-6				X		
HCFC-132b	1649-08-7				X		
HCFC-133a	75-88-7				X		
HCFC-141b	1717-00-6				X		
HCFC-142b	75-68-3				X		
HCFC-21	75-43-4				X		
HCFC-22	75-45-6				X		
HCFC-225aa	128903-21-9				X		
HCFC-225ba	422-48-0				X		
HCFC-225bb	422-44-6				X		
HCFC-225ca	422-56-0				X		
HCFC-225cb	507-55-1				X		
HCFC-225cc	13474-88-9				X		
HCFC-225da	431-86-7				X		
HCFC-225ea	136013-79-1				X		
HCFC-225eb	111512-56-2				X		
HCFC-253fb	460-35-5				X		
Heptachlor	76-44-8			1	313	P059	
Heptachlor and Metabolites	N.A.			&			
Heptachlor epoxide	1024-57-3			1			

Appendix A: Consolidated List of Chemicals by Alphabetical Name

NAME	CAS/313 Category Codes	Section 302 (EHS) TPQ	Section 304 EHS RQ	CERCLA RQ	Section 313	RCRA CODE	CAA 112(r) TQ
1,2,3,4,6,7,8-heptachlorodibenzo- <i>p</i> -dioxin	35822-46-9				313!		
1,2,3,4,7,8,9-heptachlorodibenzofuran	55673-89-7				313!		
1,2,3,4,6,7,8-heptachlorodibenzofuran	67562-39-4				313!		
1,4,5,6,7,8,8-Heptachloro-3a,4,7,7a-tetrahydro-4,7-methano-1H-indene	76-44-8			1	X	P059	
3,6,9,12,15,18,21-Heptaooxatricosan-1-ol, 23-(nonylphenoxy)-	27177-05-5				313%		
Hexabromocyclododecane	N270				313^		
Hexabromocyclododecane	25637-99-4				313^		
1,2,5,6,9,10-Hexabromocyclododecane	3194-55-6				313^		
Hexachlorobenzene	118-74-1			10	313	U127	
Hexachloro-1,3-butadiene	87-68-3			1	313	U128	
Hexachlorobutadiene	87-68-3			1	X	U128	
Hexachlorocyclohexane (all isomers)	608-73-1			&			
<i>alpha</i> -Hexachlorocyclohexane	319-84-6			10	313		
Hexachlorocyclohexane (gamma isomer)	58-89-9	1,000/10,000	1	1	X	U129	
Hexachlorocyclopentadiene	77-47-4	100	10	10	313	U130	
1,2,3,7,8,9-hexachlorodibenzo- <i>p</i> -dioxin	19408-74-3				313!		
1,2,3,4,7,8-hexachlorodibenzo- <i>p</i> -dioxin	39227-28-6				313!		
1,2,3,6,7,8-hexachlorodibenzo- <i>p</i> -dioxin	57653-85-7				313!		
1,2,3,6,7,8-hexachlorodibenzofuran	57117-44-9				313!		
2,3,4,6,7,8-hexachlorodibenzofuran	60851-34-5				313!		
1,2,3,4,7,8-hexachlorodibenzofuran	70648-26-9				313!		
1,2,3,7,8,9-hexachlorodibenzofuran	72918-21-9				313!		
Hexachloroethane	67-72-1			100	313	U131	
Hexachloronaphthalene	1335-87-1				313		
Hexachlorophene	70-30-4			100	313	U132	
Hexachloropropene	1888-71-7			1,000		U243	
Hexaethyl tetraphosphate	757-58-4			100		P062	
1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylcyclopenta[g]-2-benzopyran	1222-05-5				313		
Hexamethylenediamine, N,N'-dibutyl-	4835-11-4	500	500				
Hexamethylene-1,6-diisocyanate	822-06-0			100	313#		
Hexamethylphosphoramide	680-31-9			1	313		
Hexane	110-54-3			5,000	X		
<i>n</i> -Hexane	110-54-3			5,000	313		
Hexazinone	51235-04-2				313		
Hydramethylnon	67485-29-4				313		
Hydrazine	302-01-2	1,000	1	1	313	U133	15,000
Hydrazine, 1,2-diethyl-	1615-80-1			10		U086	
Hydrazine, 1,1-dimethyl-	57-14-7	1,000	10	10	X	U098	15,000
Hydrazine, 1,2-dimethyl-	540-73-8			1		U099	
Hydrazine, 1,2-diphenyl-	122-66-7			10	X	U109	
Hydrazine, methyl-	60-34-4	500	10	10	X	P068	15,000

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NAME	CAS/313 Category Codes	Section 302 (EHS) TPQ	Section 304 EHS RQ	CERCLA RQ	Section 313	RCRA CODE	CAA 112(r) TQ
Hydrazine sulfate (1:1)	10034-93-2				313		
Hydrazobenzene	122-66-7			10	X	U109	
Hydrochloric acid	7647-01-0			5,000			
Hydrochloric acid (conc 37% or greater)	7647-01-0			5,000			15,000
Hydrochloric acid (aerosol forms only)	7647-01-0			5,000	313		
Hydrocyanic acid	74-90-8	100	10	10	X	P063	2,500
Hydrofluoric acid	7664-39-3	100	100	100	X	U134	
Hydrofluoric acid (conc. 50% or greater)	7664-39-3	100	100	100	X	U134	1,000
Hydrogen	1333-74-0						10,000
Hydrogen chloride (anhydrous)	7647-01-0	500	5,000	5,000	X		5,000
Hydrogen chloride (gas only)	7647-01-0	500	5,000	5,000	X		5,000
Hydrogen cyanide	74-90-8	100	10	10	313	P063	2,500
Hydrogen fluoride	7664-39-3	100	100	100	313	U134	
Hydrogen fluoride (anhydrous)	7664-39-3	100	100	100	X	U134	1,000
Hydrogen peroxide (Conc.> 52%)	7722-84-1	1,000	1,000				
Hydrogen selenide	7783-07-5	10	10		313c		500
Hydrogen sulfide	7783-06-4	500	100	100	313	U135	10,000
Hydroperoxide, 1-methyl-1-phenylethyl-	80-15-9			10	X	U096	
Hydroquinone	123-31-9	500/10,000	100	100	313		
N-Hydroxyethylethylenediamine	111-41-1				313		
Imazalil	35554-44-0				313		
Indeno[1,2,3-cd]pyrene	193-39-5			100	313+	U137	
3-Iodo-2-propynyl butylcarbamate	55406-53-6				313		
Iron carbonyl (Fe(CO) ₅), (TB-5-11)-	13463-40-6	100	100		X		2,500
Iron, pentacarbonyl-	13463-40-6	100	100		313		2,500
Isobenzan	297-78-9	100/10,000	100				
Isobutane	75-28-5						10,000
Isobutyl alcohol	78-83-1			5,000		U140	
Isobutyraldehyde	78-84-2				313		
Isobutyronitrile	78-82-0	1,000	1,000				20,000
Isocyanic acid, 3,4-dichlorophenyl ester	102-36-3	500/10,000	500				
Isodrin	465-73-6	100/10,000	1	1	313	P060	
Isofenphos	25311-71-1				313		
Isofluorophate	55-91-4	100	100	100		P043	
1H-Isoindole-1,3(2H)-dione, 3a,4,7,7a-tetrahydro-2-[(trichloromethyl)thio]-	133-06-2			10	X		
Isononylphenol	11066-49-2				313\$		
4-Isononylphenol	26543-97-5				313\$		
Isopentane	78-78-4						10,000
Isophorone	78-59-1			5,000			
Isophorone diisocyanate	4098-71-9	500	500		313#		
Isoprene	78-79-5			100	313		10,000
Isopropanolamine dodecylbenzene sulfonate	42504-46-1			1,000			
Isopropyl alcohol (mfg-strong acid process)	67-63-0				313		

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NAME	CAS/313 Category Codes	Section 302 (EHS) TPQ	Section 304 EHS RQ	CERCLA RQ	Section 313	RCRA CODE	CAA 112(r) TQ
Isopropylamine	75-31-0						10,000
Isopropyl chloride	75-29-6						10,000
Isopropyl chloroformate	108-23-6	1,000	1,000				15,000
4,4'-Isopropylidenediphenol	80-05-7				313		
Isopropylmethylpyrazolyl dimethylcarbamate	119-38-0	500	100	100		P192	
Isosafrole	120-58-1			100	313	U141	
Isothiocyanatomethane	556-61-6	500	500		X		
Kepone	143-50-0			1		U142	
Lactofen	77501-63-4				313		
Lactonitrile	78-97-7	1,000	1,000				
Lasiocarpine	303-34-4			10		U143	
Lead ††	7439-92-1			10	313		
Lead acetate	301-04-2			10	313c	U144	
Lead arsenate	7645-25-2			1	313c		
Lead arsenate	7784-40-9			1	313c		
Lead arsenate	10102-48-4			1	313c		
Lead chloride	7758-95-4			10	313c		
Lead Compounds	N420			&	313		
Lead fluoborate	13814-96-5			10	313c		
Lead fluoride	7783-46-2			10	313c		
Lead iodide	10101-63-0			10	313c		
Lead nitrate	10099-74-8			10	313c		
Lead phosphate	7446-27-7			10	313c	U145	
Lead stearate	1072-35-1			10	313c		
Lead stearate	7428-48-0			10	313c		
Lead stearate	56189-09-4			10	313c		
Lead subacetate	1335-32-6			10	313c	U146	
Lead sulfate	7446-14-2			10	313c		
Lead sulfate	15739-80-7			10	313c		
Lead sulfide	1314-87-0			10	313c		
Lead thiocyanate	592-87-0			10	313c		
Leptophos	21609-90-5	500/10,000	500				
Lewisite	541-25-3	10	10				
Lindane	58-89-9	1,000/10,000	1	1	313	U129	
Linuron	330-55-2				313		
Lithium carbonate	554-13-2				313		
Lithium chromate	14307-35-8			10	313c		
Lithium hydride	7580-67-8	100	100				
Malathion	121-75-5			100	313		
Maleic acid	110-16-7			5,000			
Maleic anhydride	108-31-6			5,000	313	U147	
Maleic hydrazide	123-33-1			5,000		U148	
Malononitrile	109-77-3	500/10,000	1,000	1,000	313	U149	
Maneb	12427-38-2				313		
Manganese	7439-96-5				313		
Manganese, bis(dimethylcarbamodithioato-S,S')-	15339-36-3			10	313c	P196	
Manganese Compounds	N450			&	313		

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NAME	CAS/313 Category Codes	Section 302 (EHS) TPQ	Section 304 EHS RQ	CERCLA RQ	Section 313	RCRA CODE	CAA 112(r) TQ
Manganese, tricarbonyl methylcyclopentadienyl	12108-13-3	100	100		313c		
MBOCA	101-14-4			10	X	U158	
MCPA	94-74-6				X		
MDI	101-68-8			5,000	X		
Mechlorethamine	51-75-2	10	10		X		
Mecoprop	93-65-2				313		
Melphalan	148-82-3			1		U150	
Mephosfolan	950-10-7	500	500				
2-Mercaptobenzothiazole	149-30-4				313		
Mercaptodimethur	2032-65-7	500/10,000	10	10	X	P199	
Mercuric acetate	1600-27-7	500/10,000	500		313c		
Mercuric chloride	7487-94-7	500/10,000	500		313c		
Mercuric cyanide	592-04-1			1	313c		
Mercuric nitrate	10045-94-0			10	313c		
Mercuric oxide	21908-53-2	500/10,000	500		313c		
Mercuric sulfate	7783-35-9			10	313c		
Mercuric thiocyanate	592-85-8			10	313c		
Mercurous nitrate	7782-86-7			10	313c		
Mercurous nitrate	10415-75-5			10	313c		
Mercury	7439-97-6			1	313	U151	
Mercury Compounds	N458			&	313		
Mercury fulminate	628-86-4			10	313c	P065	
Merphos	150-50-5				313		
Methacrolein diacetate	10476-95-6	1,000	1,000				
Methacrylic anhydride	760-93-0	500	500				
Methacrylonitrile	126-98-7	500	1,000	1,000	313	U152	10,000
Methacryloyl chloride	920-46-7	100	100				
Methacryloyloxyethyl isocyanate	30674-80-7	100	100				
Methamidophos	10265-92-6	100/10,000	100				
Metham sodium	137-42-8				313		
Methanamine	74-89-5			100			10,000
Methanamine, N, N-dimethyl-	75-50-3			100			10,000
Methanamine, N-methyl-	124-40-3			1,000	X	U092	10,000
Methanamine, N-methyl-N-nitroso-	62-75-9	1,000	10	10	X	P082	
Methane	74-82-8						10,000
Methane, chloro-	74-87-3			100	X	U045	10,000
Methane, chloromethoxy-	107-30-2	100	10	10	X	U046	5,000
Methane, isocyanato-	624-83-9	500	10	10	X	P064	10,000
Methane, oxybis-	115-10-6						10,000
Methane, oxybis[chloro-	542-88-1	100	10	10	X	P016	1,000
Methanesulfonyl chloride, trichloro-	594-42-3	500	100	100	X		10,000
Methanesulfonyl fluoride	558-25-8	1,000	1,000				
Methane, tetranitro-	509-14-8	500	10	10		P112	10,000
Methanethiol	74-93-1	500	100	100	X	U153	10,000
Methane, trichloro-	67-66-3	10,000	10	10	X	U044	20,000
4,7-Methanoindan, 1,2,3,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-	57-74-9	1,000	1	1	X	U036	
Methanol	67-56-1			5,000	313	U154	
Methapyrilene	91-80-5			5,000		U155	

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NAME	CAS/313 Category Codes	Section 302 (EHS) TPQ	Section 304 EHS RQ	CERCLA RQ	Section 313	RCRA CODE	CAA 112(r) TQ
Methazole	20354-26-1				313		
Methidathion	950-37-8	500/10,000	500				
Methiocarb	2032-65-7	500/10,000	10	10	313	P199	
Methomyl	16752-77-5	500/10,000	100	100		P066	
Methoxone	94-74-6				313		
Methoxone sodium salt	3653-48-3				313		
Methoxychlor	72-43-5			1	313	U247	
2-Methoxyethanol	109-86-4				313		
Methoxyethylmercuric acetate	151-38-2	500/10,000	500		313c		
Methyl acrylate	96-33-3				313		
Methyl bromide	74-83-9	1,000	1,000	1,000	X	U029	
2-Methyl-1-butene	563-46-2						10,000
3-Methyl-1-butene	563-45-1						10,000
Methyl chloride	74-87-3			100	X	U045	10,000
Methyl 2-chloroacrylate	80-63-7	500	500				
Methyl chlorocarbonate	79-22-1	500	1,000	1,000	313	U156	5,000
Methyl chloroform	71-55-6			1,000	X	U226	
Methyl chloroformate	79-22-1	500	1,000	1,000	X	U156	5,000
3-Methylcholanthrene	56-49-5			10	313+	U157	
5-Methylchrysene	3697-24-3				313+		
4-Methyldiphenylmethane-3,4-diisocyanate	75790-84-0				313#		
4,4'-Methylenebis(2-chloroaniline)	101-14-4			10	313	U158	
4,4'-Methylenebis(N,N-dimethyl)benzenamine	101-61-1				313		
1,1'-Methylene bis(4-isocyanatocyclohexane)	5124-30-1				313#		
Methylenebis(phenylisocyanate)	101-68-8			5,000	X		
4,4'-Methylenedi(phenyl isocyanate)	101-68-8			5,000	313#		
Methylene bromide	74-95-3			1,000	313	U068	
Methylene chloride	75-09-2			1,000	X	U080	
4,4'-Methylenedianiline	101-77-9			10	313		
Methyl ether	115-10-6						10,000
Methyl ethyl ketone	78-93-3			5,000		U159	
Methyl ethyl ketone peroxide	1338-23-4			10		U160	
Methyleugenol	93-15-2				313		
Methyl formate	107-31-3						10,000
Methyl hydrazine	60-34-4	500	10	10	313	P068	15,000
Methyl iodide	74-88-4			100	313	U138	
Methyl isobutyl ketone	108-10-1			5,000	313	U161	
Methyl isocyanate	624-83-9	500	10	10	313	P064	10,000
Methyl isothiocyanate	556-61-6	500	500		313		
2-Methylactonitrile	75-86-5	1,000	10	10	313	P069	
Methyl mercaptan	74-93-1	500	100	100	313s	U153	10,000
Methylmercuric dicyanamide	502-39-6	500/10,000	500		313c		
Methyl methacrylate	80-62-6			1,000	313	U162	
N-Methylolacrylamide	924-42-5				313		
Methyl parathion	298-00-0	100/10,000	100	100	313	P071	
Methyl phenkapton	3735-23-7	500	500				
Methyl phosphonic dichloride	676-97-1	100	100				

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NAME	CAS/313 Category Codes	Section 302 (EHS) TPQ	Section 304 EHS RQ	CERCLA RQ	Section 313	RCRA CODE	CAA 112(r) TQ
2-Methylpropene	115-11-7						10,000
2-Methylpyridine	109-06-8			5,000	313	U191	
N-Methyl-2-pyrrolidone	872-50-4				313		
Methyl tert-butyl ether	1634-04-4			1,000	313		
Methyl thiocyanate	556-64-9	10,000	10,000				20,000
Methylthiouracil	56-04-2			10		U164	
Methyltrichlorosilane	75-79-6	500	500				5,000
Methyl vinyl ketone	78-94-4	10	10				
Metiram	9006-42-2				313		
Metolcarb	1129-41-5	100/10,000	1,000	1,000		P190	
Metribuzin	21087-64-9				313		
Mevinphos	7786-34-7	500	10	10	313		
Mexacarbate	315-18-4	500/10,000	1,000	1,000		P128	
Michler's ketone	90-94-8				313		
Mitomycin C	50-07-7	500/10,000	10	10		U010	
Molinate	2212-67-1				313		
Molybdenum trioxide	1313-27-5				313		
Monochloropentafluoroethane	76-15-3				313		
Monocrotophos	6923-22-4	10/10,000	10				
Monoethylamine	75-04-7			100			10,000
Monomethylamine	74-89-5			100			10,000
Monuron	150-68-5				313		
Muscimol	2763-96-4	500/10,000	1,000	1,000		P007	
Mustard gas	505-60-2	500	500		313		
Myclobutanil	88671-89-0				313		
Nabam	142-59-6				313		
Naled	300-76-5			10	313		
Naphthalene	91-20-3			100	313	U165	
1,5-Naphthalene diisocyanate	3173-72-6				313#		
1-Naphthalenol, methylcarbamate	63-25-2			100	X	U279	
Naphthenic acid	1338-24-5			100			
1,4-Naphthoquinone	130-15-4			5,000		U166	
<i>alpha</i> -Naphthylamine	134-32-7			100	313	U167	
<i>beta</i> -Naphthylamine	91-59-8			10	313	U168	
Nickel ††	7440-02-0			100	313		
Nickel ammonium sulfate	15699-18-0			100	313c		
Nickel carbonyl	13463-39-3	1	10	10	313c	P073	1,000
Nickel chloride	7718-54-9			100	313c		
Nickel chloride	37211-05-5			100	313c		
Nickel Compounds	N495			&	313		
Nickel cyanide	557-19-7			10	313c	P074	
Nickel hydroxide	12054-48-7			10	313c		
Nickel nitrate	14216-75-2			100	313c		
Nickel sulfate	7786-81-4			100	313c		
Nicotine	54-11-5	100	100	100	313c	P075	
Nicotine and salts	N503				313		
Nicotine and salts	54-11-5			100	313c	P075	
Nicotine sulfate	65-30-5	100/10,000	100	100	313c		
Nitrapyrin	1929-82-4				313		
Nitrate compounds (water dissociable)	N511				313		

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Nitric acid	7697-37-2	1,000	1,000	1,000	313		
Nitric acid (conc 80% or greater)	7697-37-2	1,000	1,000	1,000	X		15,000
Nitric oxide	10102-43-9	100	10	10 @		P076	10,000
Nitrilotriacetic acid	139-13-9				313		
Nitrilotriacetic acid trisodium salt	5064-31-3				313		
<i>p</i> -Nitroaniline	100-01-6			5,000	313	P077	
5-Nitro- <i>o</i> -anisidine	99-59-2				313		
<i>o</i> -Nitroanisole	91-23-6				313		
Nitrobenzene	98-95-3	10,000	1,000	1,000	313	U169	
4-Nitrobiphenyl	92-93-3			10	313		
6-Nitrochrysene	7496-02-8				313+		
Nitrocyclohexane	1122-60-7	500	500				
Nitrofen	1836-75-5				313		
Nitrogen dioxide	10102-44-0	100	10	10 @		P078	
Nitrogen dioxide	10544-72-6			10 @			
Nitrogen mustard	51-75-2	10	10		313		
Nitrogen oxide (NO)	10102-43-9	100	10	10 @		P076	10,000
Nitroglycerin	55-63-0			10	313	P081	
Nitromethane	75-52-5				313		
Nitrophenol (mixed isomers)	25154-55-6			100			
2-Nitrophenol	88-75-5			100	313		
4-Nitrophenol	100-02-7			100	313	U170	
<i>m</i> -Nitrophenol	554-84-7			100			
<i>p</i> -Nitrophenol	100-02-7			100	X	U170	
Nitrophenols	25154-55-6			&			
2-Nitropropane	79-46-9			10	313	U171	
1-Nitropyrene	5522-43-0				313+		
4-Nitropyrene	57835-92-4				313+		
Nitrosamines	N.A.			&			
<i>N</i> -Nitrosodi- <i>n</i> -butylamine	924-16-3			10	313	U172	
<i>N</i> -Nitrosodiethanolamine	1116-54-7			1		U173	
<i>N</i> -Nitrosodiethylamine	55-18-5			1	313	U174	
<i>N</i> -Nitrosodimethylamine	62-75-9	1,000	10	10	313	P082	
Nitrosodimethylamine	62-75-9	1,000	10	10	X	P082	
<i>N</i> -Nitrosodiphenylamine	86-30-6			100	313		
<i>p</i> -Nitrosodiphenylamine	156-10-5				313		
<i>N</i> -Nitrosodi- <i>n</i> -propylamine	621-64-7			10	313	U111	
<i>N</i> -Nitroso- <i>N</i> -ethylurea	759-73-9			1	313	U176	
<i>N</i> -Nitroso- <i>N</i> -methylurea	684-93-5			1	313	U177	
<i>N</i> -Nitroso- <i>N</i> -methylurethane	615-53-2			1		U178	
<i>N</i> -Nitrosomethylvinylamine	4549-40-0			10	313	P084	
<i>N</i> -Nitrosomorpholine	59-89-2			1	313		
<i>N</i> -Nitrosonornicotine	16543-55-8				313		
<i>N</i> -Nitrosopiperidine	100-75-4			10	313	U179	
<i>N</i> -Nitrosopyrrolidine	930-55-2			1		U180	
Nitrotoluene	1321-12-6			1,000			
<i>m</i> -Nitrotoluene	99-08-1			1,000			
<i>o</i> -Nitrotoluene	88-72-2			1,000	313		
<i>p</i> -Nitrotoluene	99-99-0			1,000			
5-Nitro- <i>o</i> -toluidine	99-55-8			100	313	U181	

US EPA: List of Lists

EPA 550-B-22-001

Appendix A: Consolidated List of Chemicals by Alphabetical Name

NAME	CAS/313 Category Codes	Section 302 (EHS) TPQ	Section 304 EHS RQ	CERCLA RQ	Section 313	RCRA CODE	CAA 112(r) TQ
Nitrous acid, ethyl ester	109-95-5						10,000
3,6,9,12,15,18,21,24,27- Nonaoxanonacosan-1-ol, 29- (nonylphenoxy)-	26571-11-9				313%		
Nonylphenol (includes only 6 chemicals)	N530				313		
Nonylphenol	25154-52-3				313\$		
Nonylphenol, branched	90481-04-2				313\$		
4-Nonylphenol	104-40-5				313\$		
4-Nonylphenol, branched	84852-15-3				313\$		
Nonylphenol Ethoxylates	N270				313%		
Norbormide	991-42-4	100/10,000	100				
Norflurazon	27314-13-2				313		
1,2,3,4,6,7,8,9-octachlorodibenzo- <i>p</i> - dioxin	3268-87-9				313!		
1,2,3,4,6,7,8,9- octachlorodibenzofuran	39001-02-0				313!		
Octachloronaphthalene	2234-13-1				313		
Octachlorostyrene	29082-74-4				313		
3,6,9,12,15,18,21,24- Octaoxahexacosan-1-ol, 26- (nonylphenoxy)-	26571-11-9				313%		
Oleum (fuming sulfuric acid)	8014-95-7			1,000			10,000
Organorhodium Complex (PMN-82- 147)	0	10/10,000	10	PMN			
Oryzalin	19044-88-3				313		
Osmium oxide OsO ₄ (T-4)-	20816-12-0			1,000	X	P087	
Osmium tetroxide	20816-12-0			1,000	313	P087	
Ouabain	630-60-4	100/10,000	100				
Oxamyl	23135-22-0	100/10,000	100	100		P194	
Oxetane, 3,3-bis(chloromethyl)-	78-71-7	500	500				
Oxirane	75-21-8	1,000	10	10	X	U115	10,000
Oxirane, (chloromethyl)-	106-89-8	1,000	100	100	X	U041	20,000
Oxirane, methyl-	75-56-9	10,000	100	100	X		10,000
Oxydemeton-methyl	301-12-2				313		
Oxydiazon	19666-30-9				313		
Oxydisulfoton	2497-07-6	500	500				
Oxyfluorfen	42874-03-3				313		
Ozone	10028-15-6	100	100		313		
Paraformaldehyde	30525-89-4			1,000			
Paraldehyde	123-63-7			1,000	313	U182	
Paraquat dichloride	1910-42-5	10/10,000	10		313		
Paraquat methosulfate	2074-50-2	10/10,000	10				
Parathion	56-38-2	100	10	10	313	P089	
Parathion-methyl	298-00-0	100/10,000	100	100	X	P071	
Paris green	12002-03-8	500/10,000	1	1			
PCBs	1336-36-3			1	X		
PCNB	82-68-8			100	X	U185	
PCP	87-86-5			10	X		
Pebulate	1114-71-2				313		
Pendimethalin	40487-42-1				313		

Appendix A: Consolidated List of Chemicals by Alphabetical Name

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Pentaborane	19624-22-7	500	500				
Pentachlorobenzene	608-93-5			10	313	U183	
1,2,3,7,8-pentachlorodibenzo- <i>p</i> -dioxin	40321-76-4				313!		
2,3,4,7,8-pentachlorodibenzofuran	57117-31-4				313!		
1,2,3,7,8-pentachlorodibenzofuran	57117-41-6				313!		
Pentachloroethane	76-01-7			10	313	U184	
Pentachloronitrobenzene	82-68-8			100	X	U185	
Pentachlorophenol	87-86-5			10	313		
Pentadecylamine	2570-26-5	100/10,000	100				
1,3-Pentadiene	504-60-9			100		U186	10,000
Pentane	109-66-0						10,000
1-Pentene	109-67-1						10,000
2-Pentene, (E)-	646-04-8						10,000
2-Pentene, (Z)-	627-20-3						10,000
Pentobarbital sodium	57-33-0				313		
Peracetic acid	79-21-0	500	500		313		10,000
Perchloroethylene	127-18-4			100	X	U210	
Perchloromethyl mercaptan	594-42-3	500	100	100	313		10,000
Perfluorooctyl iodide	507-63-1				313		
Permethrin	52645-53-1				313		
Phenacetin	62-44-2			100		U187	
Phenanthrene	85-01-8			5,000	313		
Phenol	108-95-2	500/10,000	1,000	1,000	313	U188	
Phenol, 2-(1-methylethoxy)-, methylcarbamate	114-26-1			100	X	U411	
Phenol, 3-(1-methylethyl)-, methylcarbamate	64-00-6	500/10,000	10	10		P202	
Phenolphthalein	77-09-8				313		
Phenol, 2,2'-thiobis[4-chloro-6-methyl- Pheno	4418-66-0	100/10,000	100				
Phenothrin	26002-80-2				313		
Phenoxarsine, 10,10'-oxydi-	58-36-6	500/10,000	500		313c		
Phenyl dichloroarsine	696-28-6	500	1	1		P036	
1,2-Phenylenediamine	95-54-5				313		
<i>p</i> -Phenylenediamine	106-50-3			5,000	313		
1,3-Phenylenediamine	108-45-2				313		
1,2-Phenylenediamine dihydrochloride	615-28-1				313		
1,4-Phenylenediamine dihydrochloride	624-18-0				313		
1,4-Phenylene diisocyanate	104-49-4				313#		
1,3-Phenylene diisocyanate	123-61-5				313#		
Phenylhydrazine hydrochloride	59-88-1	1,000/10,000	1,000				
Phenylmercuric acetate	62-38-4	500/10,000	100	100	313c	P092	
Phenylmercury acetate	62-38-4	500/10,000	100	100	313c	P092	
2-Phenylphenol	90-43-7				313		
Phenylsilatrane	2097-19-0	100/10,000	100				
Phenylthiourea	103-85-5	100/10,000	100	100		P093	
Phenytoin	57-41-0				313		
Phorate	298-02-2	10	10	10		P094	
Phosacetim	4104-14-7	100/10,000	100				
Phosfolan	947-02-4	100/10,000	100				
Phosgene	75-44-5	10	10	10	313	P095	500

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NAME	CAS/313 Category Codes	Section 302 (EHS) TPQ	Section 304 EHS RQ	CERCLA RQ	Section 313	RCRA CODE	CAA 112(r) TQ
Phosphamidon	13171-21-6	100	100				
Phosphine	7803-51-2	500	100	100	313	P096	5,000
Phosphonic acid, (2,2,2-trichloro-1-hydroxyethyl)-, dimethyl ester	52-68-6			100	X		
Phosphonothioic acid, methyl-, O-ethyl O-(4-(methylthio)phenyl) ester	2703-13-1	500	500				
Phosphonothioic acid, methyl-, S-(2-(bis(1-methylethyl)amino)ethyl) O-ethyl ester	50782-69-9	100	100				
Phosphonothioic acid, methyl-, O-(4-nitrophenyl) O-phenyl ester	2665-30-7	500	500				
Phosphoric acid	7664-38-2			5,000			
Phosphoric acid, 2-dichloroethenyl dimethyl ester	62-73-7	1,000	10	10	X		
Phosphoric acid, dimethyl 4-(methylthio) phenyl ester	3254-63-5	500	500				
Phosphorodithioic acid O-ethyl S,S-dipropyl ester	13194-48-4	1,000	1,000		X		
Phosphorothioic acid, O,O-diethyl-O-(4-nitrophenyl) ester	56-38-2	100	10	10	X	P089	
Phosphorothioic acid, O,O-dimethyl-5-(2-(methylthio)ethyl)ester	2587-90-8	500	500				
Phosphorous trichloride	7719-12-2	1,000	1,000	1,000			15,000
Phosphorus (yellow or white)	7723-14-0	100	1	1	X ¹		
Phosphorus (yellow or white)	12185-10-3				313		
Phosphorus	7723-14-0	100	1	1			
Phosphorus oxychloride	10025-87-3	500	1,000	1,000			5,000
Phosphorus pentachloride	10026-13-8	500	500				
Phosphorus trichloride	7719-12-2	1,000	1,000	1,000			15,000
Phosphoryl chloride	10025-87-3	500	1,000	1,000			5,000
Phthalate Esters	N.A.			&			
Phthalic anhydride	85-44-9			5,000	313	U190	
Physostigmine	57-47-6	100/10,000	100	100		P204	
Physostigmine, salicylate (1:1)	57-64-7	100/10,000	100	100		P188	
Picloram	1918-02-1				313		
2-Picoline	109-06-8			5,000	X	U191	
Picric acid	88-89-1				313		
Picrotoxin	124-87-8	500/10,000	500				
Piperidine	110-89-4	1,000	1,000				15,000
Piperonyl butoxide	51-03-6				313		
Pirimifos-ethyl	23505-41-1	1,000	1,000				
Pirimiphos-methyl	29232-93-7				313		
Plumbane, tetramethyl-	75-74-1	100	100				10,000
Polybrominated Biphenyls (PBBs)	N575				313		
Polychlorinated alkanes (C10 to C13)	N583				313		
Polychlorinated biphenyls	1336-36-3			1	313		
Polycyclic aromatic compounds (includes only 25 chemicals)	N590				313		
Polycyclic organic matter ^e	N.A.			&			
Polymeric diphenylmethane diisocyanate	9016-87-9				313#		

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NAME	CAS/313 Category Codes	Section 302 (EHS) TPQ	Section 304 EHS RQ	CERCLA RQ	Section 313	RCRA CODE	CAA 112(r) TQ
Polynuclear Aromatic Hydrocarbons	N.A.			&			
Poly(oxy-1,2-ethanediyl), α-(isononylphenyl)-ω-hydroxy-	37205-87-1				313%		
Poly(oxy-1,2-ethanediyl), α-(nonylphenyl)-ω-hydroxy-	9016-45-9				313%		
Poly(oxy-1,2-ethanediyl), α-(nonylphenyl)-ω-hydroxy-, branched	68412-54-4				313%		
Poly(oxy-1,2-ethanediyl), α-(2-nonylphenyl)-ω-hydroxy-	51938-25-1				313%		
Poly(oxy-1,2-ethanediyl), α-(4-nonylphenyl)-ω-hydroxy-	26027-38-3				313%		
Poly(oxy-1,2-ethanediyl), α-(4-nonylphenyl)-ω-hydroxy-, branched	127087-87-0				313%		
Potassium arsenate	7784-41-0			1	313c		
Potassium arsenite	10124-50-2	500/10,000	1	1	313c		
Potassium bichromate	7778-50-9			10	313c		
Potassium bromate	7758-01-2				313		
Potassium chromate	7789-00-6			10	313c		
Potassium cyanide	151-50-8	100	10	10	313c	P098	
Potassium dimethyldithiocarbamate	128-03-0				313		
Potassium hydroxide	1310-58-3			1,000			
Potassium N-methyldithiocarbamate	137-41-7				313		
Potassium perfluorooctanoate	2395-00-8				313		
Potassium permanganate	7722-64-7			100	313c		
Potassium silver cyanide	506-61-6	500	1	1	313c	P099	
Profenofos	41198-08-7				313		
Promecarb	2631-37-0	500/10,000	1,000	1,000		P201	
Prometryn	7287-19-6				313		
Pronamide	23950-58-5			5,000	313	U192	
Propachlor	1918-16-7				313		
1,2-Propadiene	463-49-0						10,000
Propadiene	463-49-0						10,000
2-Propanamine	75-31-0						10,000
Propane	74-98-6						10,000
Propane, 2-chloro-	75-29-6						10,000
Propane 1,2-dichloro-	78-87-5			1,000	X	U083	
Propane, 2,2-dimethyl-	463-82-1						10,000
Propane, 2-methyl	75-28-5						10,000
Propanenitrile	107-12-0	500	10	10		P101	10,000
Propanenitrile, 2-methyl-	78-82-0	1,000	1,000				20,000
1,3-Propane sultone	1120-71-4			10	313	U193	
Propanil	709-98-8				313		
Propargite	2312-35-8			10	313		
Propargyl alcohol	107-19-7			1,000	313	P102	
Propargyl bromide	106-96-7	10	10				
2-Propenal	107-02-8	500	1	1	X	P003	5,000
2-Propen-1-amine	107-11-9	500	500		X		10,000
Propene	115-07-1				X		10,000
1-Propene	115-07-1				X		10,000
1-Propene, 1-chloro-	590-21-6						10,000
1-Propene, 2-chloro-	557-98-2						10,000

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NAME	CAS/313 Category Codes	Section 302 (EHS) TPQ	Section 304 EHS RQ	CERCLA RQ	Section 313	RCRA CODE	CAA 112(r) TQ
1-Propene, 2-methyl-	115-11-7						10,000
2-Propenenitrile	107-13-1	10,000	100	100	X	U009	20,000
2-Propenenitrile, 2-methyl-	126-98-7	500	1,000	1,000	X	U152	10,000
2-Propen-1-ol	107-18-6	1,000	100	100	X	P005	15,000
2-Propenoyl chloride	814-68-6	100	100				5,000
Propetamphos	31218-83-4				313		
Propham	122-42-9			1,000		U373	
Propiconazole	60207-90-1				313		
beta-Propiolactone	57-57-8	500	10	10	313		
Propionaldehyde	123-38-6			1,000	313		
Propionic acid	79-09-4			5,000			
Propionic anhydride	123-62-6			5,000			
Propionitrile	107-12-0	500	10	10		P101	10,000
Propionitrile, 3-chloro-	542-76-7	1,000	1,000	1,000	X	P027	
Propiophenone, 4'-amino	70-69-9	100/10,000	100				
Propoxur	114-26-1			100	313	U411	
n-Propylamine	107-10-8			5,000		U194	
Propyl chloroformate	109-61-5	500	500				15,000
Propylene	115-07-1				313		10,000
Propyleneimine	75-55-8	10,000	1	1	313	P067	10,000
Propylene oxide	75-56-9	10,000	100	100	313		10,000
1-Propyne	74-99-7						10,000
Propyne	74-99-7						10,000
Prothoate	2275-18-5	100/10,000	100				
Pyrene	129-00-0	1,000/10,000	5,000	5,000			
Pyrethrins	121-21-1			1			
Pyrethrins	121-29-9			1			
Pyrethrins	8003-34-7			1			
Pyridine	110-86-1			1,000	313	U196	
Pyridine, 4-amino-	504-24-5	500/10,000	1,000	1,000		P008	
Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)-, & salts	54-11-5	100	100	100	313c	P075	
Pyridine, 2-methyl-5-vinyl-	140-76-1	500	500				
Pyridine, 4-nitro-, 1-oxide	1124-33-0	500/10,000	500				
Pyriminil	53558-25-1	100/10,000	100				
Quinoline	91-22-5			5,000	313		
Quinone	106-51-4			10	313	U197	
Quintozene	82-68-8			100	313	U185	
Quizalofop-ethyl	76578-14-8				313		
Radionuclides (including Radon)	N.A.			\$			
Reserpine	50-55-5			5,000		U200	
Resmethrin	10453-86-8				313		
Resorcinol	108-46-3			5,000		U201	
Saccharin (manufacturing)	81-07-2			100	313	U202	
Saccharin and salts	81-07-2			100		U202	
Safrole	94-59-7			100	313	U203	
Salcomine	14167-18-1	500/10,000	500				
Sarin	107-44-8	10	10				
Selenious acid	7783-00-8	1,000/10,000	10	10	313c	U204	
Selenious acid, dithallium(1+) salt	12039-52-0			1,000	313c	P114	

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Selenium ††	7782-49-2			100	313		
Selenium Compounds	N725			&	313		
Selenium dioxide	7446-08-4			10	313c		
Selenium oxychloride	7791-23-3	500	500		313c		
Selenium sulfide	7488-56-4			10	313c	U205	
Selenourea	630-10-4			1,000		P103	
Semicarbazide hydrochloride	563-41-7	1,000/10,000	1,000				
Sethoxydim	74051-80-2				313		
Silane	7803-62-5						10,000
Silane, (4-aminobutyl)diethoxymethyl-	3037-72-7	1,000	1,000				
Silane, chlorotrimethyl-	75-77-4	1,000	1,000				10,000
Silane, dichloro-	4109-96-0						10,000
Silane, dichlorodimethyl-	75-78-5	500	500				5,000
Silane, tetramethyl-	75-76-3						10,000
Silane, trichloro-	10025-78-2						10,000
Silane, trichloromethyl-	75-79-6	500	500				5,000
Silver ††	7440-22-4			1,000	313		
Silver Compounds	N740			&	313		
Silver cyanide	506-64-9			1	313c	P104	
Silver nitrate	7761-88-8			1	313c		
Silver(I) perfluorooctanoate	335-93-3				313		
Silvex (2,4,5-TP)	93-72-1			100			
Simazine	122-34-9				313		
Sodium	7440-23-5			10			
Sodium arsenate	7631-89-2	1,000/10,000	1	1	313c		
Sodium arsenite	7784-46-5	500/10,000	1	1	313c		
Sodium azide (Na(N3))	26628-22-8	500	1,000	1,000	313	P105	
Sodium bichromate	10588-01-9			10	313c		
Sodium bifluoride	1333-83-1			100			
Sodium bisulfite	7631-90-5			5,000			
Sodium cacodylate	124-65-2	100/10,000	100				
Sodium chromate	7775-11-3			10	313c		
Sodium cyanide (Na(CN))	143-33-9	100	10	10	313c	P106	
Sodium dicamba	1982-69-0				313		
Sodium dimethyldithiocarbamate	128-04-1				313		
Sodium dodecylbenzenesulfonate	25155-30-0			1,000			
Sodium fluoride	7681-49-4			1,000			
Sodium fluoroacetate	62-74-8	10/10,000	10	10	313	P058	
Sodium hydrosulfide	16721-80-5			5,000			
Sodium hydroxide	1310-73-2			1,000			
Sodium hypochlorite	7681-52-9			100			
Sodium hypochlorite	10022-70-5			100			
Sodium methylate	124-41-4			1,000			
Sodium nitrite	7632-00-0			100	313		
Sodium pentachlorophenate	131-52-2				313		
Sodium o-phenylphenoxide	132-27-4				313		
Sodium phosphate, dibasic	7558-79-4			5,000			
Sodium phosphate, dibasic	10039-32-4			5,000			
Sodium phosphate, dibasic	10140-65-5			5,000			
Sodium phosphate, tribasic	7601-54-9			5,000			

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Sodium phosphate, tribasic	10101-89-0			5,000			
Sodium phosphate, tribasic	10361-89-4			5,000			
Sodium selenate	13410-01-0	100/10,000	100		313c		
Sodium selenite	7782-82-3			100	313c		
Sodium selenite	10102-18-8	100/10,000	100	100	313c		
Sodium tellurite	10102-20-2	500/10,000	500				
Stannane, acetoxystriphenyl-	900-95-8	500/10,000	500				
Streptozotocin	18883-66-4			1		U206	
Strontium chromate	7789-06-2			10	313c		
Strychnine and salts	N746				313		
Strychnine	57-24-9	100/10,000	10	10	313c	P108	
Strychnine, and salts	57-24-9			10	313c	P108	
Strychnine, sulfate	60-41-3	100/10,000	10	10	313c		
Styrene	100-42-5			1,000	313		
Styrene oxide	96-09-3			100	313		
Sulfotep	3689-24-5	500	100	100		P109	
Sulfoxide, 3-chloropropyl octyl	3569-57-1	500	500				
Sulfur dioxide	7446-09-5	500	500				
Sulfur dioxide (anhydrous)	7446-09-5	500	500				5,000
Sulfur fluoride (SF ₄), (T-4)-	7783-60-0	100	100				2,500
Sulfuric acid (aerosol forms only)	7664-93-9	1,000	1,000	1,000	313		
Sulfuric acid	7664-93-9	1,000	1,000	1,000			
Sulfuric acid (fuming)	8014-95-7			1,000			10,000
Sulfuric acid, mixture with sulfur trioxide	8014-95-7			1,000			10,000
Sulfur monochloride ¹	12771-08-3			1,000			
Sulfur monochloride ¹	10025-67-9			1,000			
Sulfur phosphide	1314-80-3			100		U189	
Sulfur tetrafluoride	7783-60-0	100	100				2,500
Sulfur trioxide	7446-11-9	100	100				10,000
Sulfuryl fluoride	2699-79-8				313		
Sulprofos	35400-43-2				313		
2,4,5-T acid	93-76-5			1,000			
2,4,5-T amines	1319-72-8			5,000			
2,4,5-T amines	2008-46-0			5,000			
2,4,5-T amines	3813-14-7			5,000			
2,4,5-T amines	6369-96-6			5,000			
2,4,5-T amines	6369-97-7			5,000			
2,4,5-T esters	93-79-8			1,000			
2,4,5-T esters	1928-47-8			1,000			
2,4,5-T esters	2545-59-7			1,000			
2,4,5-T esters	25168-15-4			1,000			
2,4,5-T esters	61792-07-2			1,000			
2,4,5-T salts	13560-99-1			1,000			
Tabun	77-81-6	10	10				
Tebuthiuron	34014-18-1				313		
Tellurium hexafluoride	7783-80-4	100	100				
Temephos	3383-96-8				313		
TEPP	107-49-3	100	10	10		P111	
Terbacil	5902-51-2				313		

Appendix A: Consolidated List of Chemicals by Alphabetical Name

NAME	CAS/313 Category Codes	Section 302 (EHS) TPQ	Section 304 EHS RQ	CERCLA RQ	Section 313	RCRA CODE	CAA 112(r) TQ
Terbufos	13071-79-9	100	100				
Tetrabromobisphenol A	79-94-7				313		
1,2,4,5-Tetrachlorobenzene	95-94-3			5,000		U207	
2,3,7,8-tetrachlorodibenzofuran	51207-31-9				313!		
2,3,7,8-Tetrachlorodibenzo- <i>p</i> -dioxin (TCDD)	1746-01-6			1	313!		
1,1,2,2-Tetrachloroethane	79-34-5			100	313	U209	
1,1,1,2-Tetrachloroethane	630-20-6			100	313	U208	
Tetrachloroethylene	127-18-4			100	313	U210	
1,1,2,2-Tetrachloro-1-fluoroethane	354-14-3				313		
1,1,1,2-Tetrachloro-2-fluoroethane	354-11-0				313		
2,3,4,6-Tetrachlorophenol	58-90-2			10	313c		
Tetrachlorvinphos	961-11-5				313		
Tetracycline hydrochloride	64-75-5				313		
Tetraethyldithiopyrophosphate	3689-24-5	500	100	100		P109	
Tetraethyl lead	78-00-2	100	10	10	313c	P110	
Tetraethyl pyrophosphate	107-49-3	100	10	10		P111	
Tetraethyltin	597-64-8	100	100				
Tetrafluoroethylene	116-14-3				313		10,000
Tetramethrin	7696-12-0				313		
p-(1,1,3,3-Tetramethylbutyl)phenol	140-66-9				313		
Tetramethyllead	75-74-1	100	100		313c		10,000
Tetramethylsilane	75-76-3						10,000
Tetranitromethane	509-14-8	500	10	10	313	P112	10,000
Thallic oxide	1314-32-5			100	313c	P113	
Thallium ††	7440-28-0			1,000	313		
Thallium(I) acetate	563-68-8			100	313c	U214	
Thallium(I) carbonate	6533-73-9	100/10,000	100	100	313c	U215	
Thallium chloride TlCl	7791-12-0	100/10,000	100	100	313c	U216	
Thallium Compounds	N760			&	313		
Thallium(I) nitrate	10102-45-1			100	313c	U217	
Thallium(I) sulfate	7446-18-6	100/10,000	100	100	313c	P115	
Thallium sulfate	10031-59-1	100/10,000	100	100	313c		
Thallos carbonate	6533-73-9	100/10,000	100	100	313c	U215	
Thallos chloride	7791-12-0	100/10,000	100	100	313c	U216	
Thallos malonate	2757-18-8	100/10,000	100				
Thallos sulfate	7446-18-6	100/10,000	100	100	313c	P115	
Thiabendazole	148-79-8				313		
Thioacetamide	62-55-5			10	313	U218	
Thiobencarb	28249-77-6				313		
Thiocarbazine	2231-57-4	1,000/10,000	1,000				
Thiocyanic acid, methyl ester	556-64-9	10,000	10,000				20,000
4,4'-Thiodianiline	139-65-1				313		
Thiodicarb	59669-26-0			100	313	U410	
Thiofanox	39196-18-4	100/10,000	100	100		P045	
Thiomethanol	74-93-1	500	100	100	X	U153	10,000
Thionazin	297-97-2	500	100	100		P040	
Thiophanate-ethyl	23564-06-9				313		
Thiophanate-methyl	23564-05-8			10	313	U409	
Thiophenol	108-98-5	500	100	100		P014	

Appendix A: Consolidated List of Chemicals by Alphabetical Name

NAME	CAS/313 Category Codes	Section 302 (EHS) TPQ	Section 304 EHS RQ	CERCLA RQ	Section 313	RCRA CODE	CAA 112(r) TQ
Thiosemicarbazide	79-19-6	100/10,000	100	100	313	P116	
Thiourea	62-56-6			10	313	U219	
Thiourea, (2-chlorophenyl)-	5344-82-1	100/10,000	100	100		P026	
Thiourea, (2-methylphenyl)-	614-78-8	500/10,000	500				
Thiourea, 1-naphthalenyl-	86-88-4	500/10,000	100	100		P072	
Thiram	137-26-8			10	313	U244	
Thorium dioxide	1314-20-1				313		
Titanium chloride (TiCl ₄) (T-4)-	7550-45-0	100	1,000	1,000	X		2,500
Titanium tetrachloride	7550-45-0	100	1,000	1,000	313		2,500
o-Tolidine	119-93-7			10	X	U095	
Toluene	108-88-3			1,000	313	U220	
Toluenediamine	25376-45-8			10	X	U221	
Toluene-2,4-diisocyanate	584-84-9	500	100	100	313		10,000
Toluene-2,6-diisocyanate	91-08-7	100	100	100	313		10,000
Toluenediisocyanate (mixed isomers)	26471-62-5			100	313	U223	10,000
Toluene diisocyanate (unspecified isomer)	26471-62-5			100	X	U223	10,000
o-Toluidine	95-53-4			100	313	U328	
p-Toluidine	106-49-0			100		U353	
o-Toluidine hydrochloride	636-21-5			100	313	U222	
Toxaphene	8001-35-2	500/10,000	1	1	313	P123	
2,4,5-TP esters	32534-95-5			100			
Triadimefon	43121-43-3				313		
Triallate	2303-17-5			100	313	U389	
Triamiphos	1031-47-6	500/10,000	500				
Triaziquone	68-76-8				313		
Triazofos	24017-47-8	500	500				
Tribenuron-methyl	101200-48-0				313		
Tribromomethane	75-25-2			100	X	U225	
Tributyltin fluoride	1983-10-4				313		
Tributyltin methacrylate	2155-70-6				313		
S,S,S-Tributyltrithiophosphate	78-48-8				313		
Trichlorfon	52-68-6			100	313		
Trichloroacetyl chloride	76-02-8	500	500		313		
1,2,3-Trichlorobenzene	87-61-6				313		
1,2,4-Trichlorobenzene	120-82-1			100	313		
Trichloro(chloromethyl)silane	1558-25-4	100	100				
Trichloro(dichlorophenyl)silane	27137-85-5	500	500				
1,1,1-Trichloroethane	71-55-6			1,000	313	U226	
1,1,2-Trichloroethane	79-00-5			100	313	U227	
Trichloroethylene	79-01-6			100	313	U228	
Trichloroethylsilane	115-21-9	500	500				
Trichlorofluoromethane	75-69-4			5,000	313	U121	
Trichloromethanesulfonyl chloride	594-42-3	500	100	100	X		10,000
Trichloromonofluoromethane	75-69-4			5,000	X	U121	
Trichloronate	327-98-0	500	500				
Trichlorophenol	25167-82-2			10	313c		
2,3,4-Trichlorophenol	15950-66-0			10	313c		
2,3,5-Trichlorophenol	933-78-8			10	313c		
2,3,6-Trichlorophenol	933-75-5			10	313c		

Appendix A: Consolidated List of Chemicals by Alphabetical Name

NAME	CAS/313 Category Codes	Section 302 (EHS) TPQ	Section 304 EHS RQ	CERCLA RQ	Section 313	RCRA CODE	CAA 112(r) TQ
2,4,5-Trichlorophenol	95-95-4			10	313		
2,4,6-Trichlorophenol	88-06-2			10	313		
3,4,5-Trichlorophenol	609-19-8			10			
Trichlorophenylsilane	98-13-5	500	500				
1,2,3-Trichloropropane	96-18-4				313		
Trichlorosilane	10025-78-2						10,000
Triclopyr-triethylammonium salt	57213-69-1				313		
Triethanolamine dodecylbenzene sulfonate	27323-41-7			1,000			
Triethoxysilane	998-30-1	500	500				
Triethylamine	121-44-8			5,000	313	U404	
Trifluorochloroethylene	79-38-9						10,000
Trifluralin	1582-09-8			10	313		
Triforine	26644-46-2				313		
Triglycidyl isocyanurate	2451-62-9				313		
Trimethylamine	75-50-3			100			10,000
1,2,4-Trimethylbenzene	95-63-6				313		
Trimethylchlorosilane	75-77-4	1,000	1,000				10,000
2,4,4-Trimethylhexamethylene diisocyanate	15646-96-5				313#		
2,2,4-Trimethylhexamethylene diisocyanate	16938-22-0				313#		
Trimethylolpropane phosphite	824-11-3	100/10,000	100				
2,2,4-Trimethylpentane	540-84-1			1,000			
2,3,5-Trimethylphenyl methylcarbamate	2655-15-4				313		
Trimethyltin chloride	1066-45-1	500/10,000	500				
1,3,5-Trinitrobenzene	99-35-4			10		U234	
Triphenyltin chloride	639-58-7	500/10,000	500		313		
Triphenyltin hydroxide	76-87-9				313		
Tris(2-chloroethyl)amine	555-77-1	100	100				
Tris(2-chloroethyl) phosphate	115-96-8				313		
Tris(2,3-dibromopropyl) phosphate	126-72-7			10	313	U235	
Tris(1,3-dichloro-2-propyl) phosphate	13674-87-8				313		
Tris(dimethylphenol) phosphate	25155-23-1				313		
Trypan blue	72-57-1			10	313	U236	
Uracil mustard	66-75-1			10		U237	
Uranyl acetate	541-09-3			100			
Uranyl nitrate	10102-06-4			100			
Uranyl nitrate	36478-76-9			100			
Urethane	51-79-6			100	313	U238	
Valinomycin	2001-95-8	1,000/10,000	1,000				
Vanadium (except when contained in an alloy)	7440-62-2				313		
Vanadium Compounds	N770				313		
Vanadium pentoxide	1314-62-1	100/10,000	1,000	1,000	313c	P120	
Vanadyl sulfate	27774-13-6			1,000	313c		
Vinclozolin	50471-44-8				313		
Vinyl acetate	108-05-4	1,000	5,000	5,000	313		15,000
Vinyl acetate monomer	108-05-4	1,000	5,000	5,000	X		15,000

Appendix A: Consolidated List of Chemicals by Alphabetical Name

NAME	CAS/313 Category Codes	Section 302 (EHS) TPQ	Section 304 EHS RQ	CERCLA RQ	Section 313	RCRA CODE	CAA 112(r) TQ
Vinyl acetylene	689-97-4						10,000
Vinyl bromide	593-60-2			100	313		
Vinyl chloride	75-01-4			1	313	U043	10,000
Vinyl ethyl ether	109-92-2						10,000
Vinyl fluoride	75-02-5				313		10,000
Vinylidene chloride	75-35-4			100	313	U078	10,000
Vinylidene fluoride	75-38-7						10,000
Vinyl methyl ether	107-25-5						10,000
Warfarin	81-81-2	500/10,000	100	100	X 313c	P001	
Warfarin and salts	N874				313		
Warfarin, & salts, conc.>0.3%	81-81-2			100	X 313c	P001	
Warfarin sodium	129-06-6	100/10,000	100	100	313c		
<i>m</i> -Xylene	108-38-3			1,000	313	U239	
<i>o</i> -Xylene	95-47-6			1,000	313	U239	
<i>p</i> -Xylene	106-42-3			100	313	U239	
Xylene (mixed isomers)	1330-20-7			100	313	U239	
Xylenol	1300-71-6			1,000			
2,6-Xylidine	87-62-7				313		
Xylylene dichloride	28347-13-9	100/10,000	100				
Yohimban-16-carboxylic acid,11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-, methyl ester (3beta, 16beta,17alpha,18beta,20alpha)-.	50-55-5			5,000		U200	
Zinc (fume or dust)	7440-66-6			1,000	313		
Zinc ††	7440-66-6			1,000			
Zinc acetate	557-34-6			1,000	313c		
Zinc ammonium chloride	14639-97-5			1,000	313c		
Zinc ammonium chloride	14639-98-6			1,000	313c		
Zinc ammonium chloride	52628-25-8			1,000	313c		
Zinc borate	1332-07-6			1,000	313c		
Zinc bromide	7699-45-8			1,000	313c		
Zinc carbonate	3486-35-9			1,000	313c		
Zinc chloride	7646-85-7			1,000	313c		
Zinc Compounds	N982			&	313		
Zinc cyanide	557-21-1			10	313c	P121	
Zinc, dichloro(4,4-dimethyl-5((((methylamino)carbonyl)oxy)imino)pentanenitrile)-, (T-4)-	58270-08-9	100/10,000	100		313c		
Zinc fluoride	7783-49-5			1,000	313c		
Zinc formate	557-41-5			1,000	313c		
Zinc hydrosulfite	7779-86-4			1,000	313c		
Zinc nitrate	7779-88-6			1,000	313c		
Zinc phenolsulfonate	127-82-2			5,000	313c		
Zinc phosphide	1314-84-7	500	100	100	313c	P122	
Zinc phosphide (conc. <= 10%)	1314-84-7	500	100	100	313c	U249	
Zinc phosphide (conc. > 10%)	1314-84-7	500	100	100	313c	P122	
Zinc silicofluoride	16871-71-9			5,000	313c		
Zinc sulfate	7733-02-0			1,000	313c		
Zineb	12122-67-7				313		

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NAME	CAS/313 Category Codes	Section 302 (EHS) TPQ	Section 304 EHS RQ	CERCLA RQ	Section 313	RCRA CODE	CAA 112(r) TQ
Ziram	137-30-4			10		P205	
Zirconium nitrate	13746-89-9			5,000			
Zirconium potassium fluoride	16923-95-8			1,000			
Zirconium sulfate	14644-61-2			5,000			
Zirconium tetrachloride	10026-11-6			5,000			

¹ Phosphorus (yellow or white) is listed on EPCRA section 313 under CAS number 12185-10-3.

Appendix B: Radionuclides Listed Under CERCLA[Top](#)**Appendix B: Radionuclides Listed Under CERCLA**

FOR REFERENCE ONLY, NOT FOR REGULATORY COMPLIANCE
SEE CFR PART 302, TABLE 302.4, APPENDIX B., FOR MORE INFORMATION

Radionuclide Name	Atomic Number	Final RQ Curies (Bq)
Radionuclides@		1&(3.7E 10)
Actinium-224	89	100 (3.7E 12)
Actinium-225	89	1 (3.7E 10)
Actinium-226	89	10 (3.7E 11)
Actinium-227	89	0.001 (3.7E 7)
Actinium-228	89	10 (3.7E 11)
Aluminum-26	13	10 (3.7E 11)
Americium-237	95	1000 (3.7E 13)
Americium-238	95	100 (3.7E 12)
Americium-239	95	100 (3.7E 12)
Americium-240	95	10 (3.7E 11)
Americium-241	95	0.01 (3.7E 8)
Americium-242m	95	0.01 (3.7E 8)
Americium-242	95	100 (3.7E 12)
Americium-243	95	0.01 (3.7E 8)
Americium-244m	95	1000 (3.7E 13)
Americium-244	95	10 (3.7E 11)
Americium-245	95	1000 (3.7E 13)
Americium-246m	95	1000 (3.7E 13)
Americium-246	95	1000 (3.7E 13)
Antimony-115	51	1000 (3.7E 13)
Antimony-116m	51	100 (3.7E 12)
Antimony-116	51	1000 (3.7E 13)
Antimony-117	51	1000 (3.7E 13)
Antimony-118m	51	10 (3.7E 11)
Antimony-119	51	1000 (3.7E 13)
Antimony-120 (16 min)	51	1000 (3.7E 13)

Radionuclide Name	Atomic Number	Final RQ Curies (Bq)
Antimony-120 (5.76 day)	51	10 (3.7E 11)
Antimony-122	51	10 (3.7E 11)
Antimony-124m	51	1000 (3.7E 13)
Antimony-124	51	10 (3.7E 11)
Antimony-125	51	10 (3.7E 11)
Antimony-126m	51	1000 (3.7E 13)
Antimony-126	51	10 (3.7E 11)
Antimony-127	51	10 (3.7E 11)
Antimony-128 (10.4 min)	51	1000 (3.7E 13)
Antimony-128 (9.01 hr)	51	10 (3.7E 11)
Antimony-129	51	100 (3.7E 12)
Antimony-130	51	100 (3.7E 12)
Antimony-131	51	1000 (3.7E 13)
Argon-39	18	1000 (3.7E 13)
Argon-41	18	10 (3.7E 11)
Arsenic-69	33	1000 (3.7E 13)
Arsenic-70	33	100 (3.7E 12)
Arsenic-71	33	100 (3.7E 12)
Arsenic-72	33	10 (3.7E 11)
Arsenic-73	33	100 (3.7E 12)
Arsenic-74	33	10 (3.7E 11)
Arsenic-76	33	100 (3.7E 12)
Arsenic-77	33	1000 (3.7E 13)
Arsenic-78	33	100 (3.7E 12)
Astatine-207	85	100 (3.7E 12)
Astatine-211	85	100 (3.7E 12)
Barium-126	56	1000 (3.7E 13)

Appendix B: Radionuclides Listed Under CERCLA

Radionuclide Name	Atomic Number	Final RQ Curies (Bq)
Barium-128	56	10 (3.7E 11)
Barium-131m	56	1000 (3.7E 13)
Barium-131	56	10 (3.7E 11)
Barium-133m	56	100 (3.7E 12)
Barium-133	56	10 (3.7E 11)
Barium-135m	56	1000 (3.7E 13)
Barium-139	56	1000 (3.7E 13)
Barium-140	56	10 (3.7E 11)
Barium-141	56	1000 (3.7E 13)
Barium-142	56	1000 (3.7E 13)
Berkelium-245	97	100 (3.7E 12)
Berkelium-246	97	10 (3.7E 11)
Berkelium-247	97	0.01 (3.7E 8)
Berkelium-249	97	1 (3.7E 10)
Berkelium-250	97	100 (3.7E 12)
Beryllium-7	4	100 (3.7E 12)
Beryllium-10	4	1 (3.7E 10)
Bismuth-200	83	100 (3.7E 12)
Bismuth-201	83	100 (3.7E 12)
Bismuth-202	83	1000 (3.7E 13)
Bismuth-203	83	10 (3.7E 11)
Bismuth-205	83	10 (3.7E 11)
Bismuth-206	83	10 (3.7E 11)
Bismuth-207	83	10 (3.7E 11)
Bismuth-210m	83	0.1 (3.7E 9)
Bismuth-210	83	10 (3.7E 11)
Bismuth-212	83	100 (3.7E 12)
Bismuth-213	83	100 (3.7E 12)
Bismuth-214	83	100 (3.7E 12)
Bromine-74m	35	100 (3.7E 12)
Bromine-74	35	100 (3.7E 12)
Bromine-75	35	100 (3.7E 12)
Bromine-76	35	10 (3.7E 11)

Radionuclide Name	Atomic Number	Final RQ Curies (Bq)
Bromine-77	35	100 (3.7E 12)
Bromine-80m	35	1000 (3.7E 13)
Bromine-80	35	1000 (3.7E 13)
Bromine-82	35	10 (3.7E 11)
Bromine-83	35	1000 (3.7E 13)
Bromine-84	35	100 (3.7E 12)
Cadmium-104	48	1000 (3.7E 13)
Cadmium-107	48	1000 (3.7E 13)
Cadmium-109	48	1 (3.7E 10)
Cadmium-113m	48	0.1 (3.7E 9)
Cadmium-113	48	0.1 (3.7E 9)
Cadmium-115m	48	10 (3.7E 11)
Cadmium-115	48	100 (3.7E 12)
Cadmium-117m	48	10 (3.7E 11)
Cadmium-117	48	100 (3.7E 12)
Calcium-41	20	10 (3.7E 11)
Calcium-45	20	10 (3.7E 11)
Calcium-47	20	10 (3.7E 11)
Californium-244	98	1000 (3.7E 13)
Californium-246	98	10 (3.7E 11)
Californium-248	98	0.1 (3.7E 9)
Californium-249	98	0.01 (3.7E 8)
Californium-250	98	0.01 (3.7E 8)
Californium-251	98	0.01 (3.7E 8)
Californium-252	98	0.1 (3.7E 9)
Californium-253	98	10 (3.7E 11)
Californium-254	98	0.1 (3.7E 9)
Carbon-11	6	1000 (3.7E 13)
Carbon-14	6	10 (3.7E 11)
Cerium-134	58	10 (3.7E 11)
Cerium-135	58	10 (3.7E 11)
Cerium-137m	58	100 (3.7E 12)
Cerium-137	58	1000 (3.7E 13)

Appendix B: Radionuclides Listed Under CERCLA

Radionuclide Name	Atomic Number	Final RQ Curies (Bq)
Cerium-139	58	100 (3.7E 12)
Cerium-141	58	10 (3.7E 11)
Cerium-143	58	100 (3.7E 12)
Cerium-144	58	1 (3.7E 10)
Cesium-125	55	1000 (3.7E 13)
Cesium-127	55	100 (3.7E 12)
Cesium-129	55	100 (3.7E 12)
Cesium-130	55	1000 (3.7E 13)
Cesium-131	55	1000 (3.7E 13)
Cesium-132	55	10 (3.7E 11)
Cesium-134m	55	1000 (3.7E 13)
Cesium-134	55	1 (3.7E 10)
Cesium-135m	55	100 (3.7E 12)
Cesium-135	55	10 (3.7E 11)
Cesium-136	55	10 (3.7E 11)
Cesium-137	55	1 (3.7E 10)
Cesium-138	55	100 (3.7E 12)
Chlorine-36	17	10 (3.7E 11)
Chlorine-38	17	100 (3.7E 12)
Chlorine-39	17	100 (3.7E 12)
Chromium-48	24	100 (3.7E 12)
Chromium-49	24	1000 (3.7E 13)
Chromium-51	24	1000 (3.7E 13)
Cobalt-55	27	10 (3.7E 11)
Cobalt-56	27	10 (3.7E 11)
Cobalt-57	27	100 (3.7E 12)
Cobalt-58m	27	1000 (3.7E 13)
Cobalt-58	27	10 (3.7E 11)
Cobalt-60m	27	1000 (3.7E 13)
Cobalt-60	27	10 (3.7E 11)
Cobalt-61	27	1000 (3.7E 13)
Cobalt-62m	27	1000 (3.7E 13)
Copper-60	29	100 (3.7E 12)

Radionuclide Name	Atomic Number	Final RQ Curies (Bq)
Copper-61	29	100 (3.7E 12)
Copper-64	29	1000 (3.7E 13)
Copper-67	29	100 (3.7E 12)
Curium-238	96	1000 (3.7E 13)
Curium-240	96	1 (3.7E 10)
Curium-241	96	10 (3.7E 11)
Curium-242	96	1 (3.7E 10)
Curium-243	96	0.01 (3.7E 8)
Curium-244	96	0.01 (3.7E 8)
Curium-245	96	0.01 (3.7E 8)
Curium-246	96	0.01 (3.7E 8)
Curium-247	96	0.01 (3.7E 8)
Curium-248	96	0.001 (3.7E 7)
Curium-249	96	1000 (3.7E 13)
Dysprosium-155	66	100 (3.7E 12)
Dysprosium-157	66	100 (3.7E 12)
Dysprosium-159	66	100 (3.7E 12)
Dysprosium-165	66	1000 (3.7E 13)
Dysprosium-166	66	10 (3.7E 11)
Einsteinium-250	99	10 (3.7E 11)
Einsteinium-251	99	1000 (3.7E 13)
Einsteinium-253	99	10 (3.7E 11)
Einsteinium-254m	99	1 (3.7E 10)
Einsteinium-254	99	0.1 (3.7E 9)
Erbium-161	68	100 (3.7E 12)
Erbium-165	68	1000 (3.7E 13)
Erbium-169	68	100 (3.7E 12)
Erbium-171	68	100 (3.7E 12)
Erbium-172	68	10 (3.7E 11)
Europium-145	63	10 (3.7E 11)
Europium-146	63	10 (3.7E 11)
Europium-147	63	10 (3.7E 11)
Europium-148	63	10 (3.7E 11)

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Appendix B: Radionuclides Listed Under CERCLA

Radionuclide Name	Atomic Number	Final RQ Curies (Bq)
Europium-149	63	100 (3.7E 12)
Europium-150 (12.6 hr)	63	1000 (3.7E 13)
Europium-150 (34.2 yr)	63	10 (3.7E 11)
Europium-152m	63	100 (3.7E 12)
Europium-152	63	10 (3.7E 11)
Europium-154	63	10 (3.7E 11)
Europium-155	63	10 (3.7E 11)
Europium-156	63	10 (3.7E 11)
Europium-157	63	10 (3.7E 11)
Europium-158	63	1000 (3.7E 13)
Fermium-252	100	10 (3.7E 11)
Fermium-253	100	10 (3.7E 11)
Fermium-254	100	100 (3.7E 12)
Fermium-255	100	100 (3.7E 12)
Fermium-257	100	1 (3.7E 10)
Fluorine-18	9	1000 (3.7E 13)
Francium-222	87	100 (3.7E 12)
Francium-223	87	100 (3.7E 12)
Gadolinium-145	64	100 (3.7E 12)
Gadolinium-146	64	10 (3.7E 11)
Gadolinium-147	64	10 (3.7E 11)
Gadolinium-148	64	0.001 (3.7E 7)
Gadolinium-149	64	100 (3.7E 12)
Gadolinium-151	64	100 (3.7E 12)
Gadolinium-152	64	0.001 (3.7E 7)
Gadolinium-153	64	10 (3.7E 11)
Gadolinium-159	64	1000 (3.7E 13)
Gallium-65	31	1000 (3.7E 13)
Gallium-66	31	10 (3.7E 11)
Gallium-67	31	100 (3.7E 12)
Gallium-68	31	1000 (3.7E 13)
Gallium-70	31	1000 (3.7E 13)

Radionuclide Name	Atomic Number	Final RQ Curies (Bq)
Gallium-72	31	10 (3.7E 11)
Gallium-73	31	100 (3.7E 12)
Germanium-66	32	100 (3.7E 12)
Germanium-67	32	1000 (3.7E 13)
Germanium-68	32	10 (3.7E 11)
Germanium-69	32	10 (3.7E 11)
Germanium-71	32	1000 (3.7E 13)
Germanium-75	32	1000 (3.7E 13)
Germanium-77	32	10 (3.7E 11)
Germanium-78	32	1000 (3.7E 13)
Gold-193	79	100 (3.7E 12)
Gold-194	79	10 (3.7E 11)
Gold-195	79	100 (3.7E 12)
Gold-198m	79	10 (3.7E 11)
Gold-198	79	100 (3.7E 12)
Gold-199	79	100 (3.7E 12)
Gold-200m	79	10 (3.7E 11)
Gold-200	79	1000 (3.7E 13)
Gold-201	79	1000 (3.7E 13)
Hafnium-170	72	100 (3.7E 12)
Hafnium-172	72	1 (3.7E 10)
Hafnium-173	72	100 (3.7E 12)
Hafnium-175	72	100 (3.7E 12)
Hafnium-177m	72	1000 (3.7E 13)
Hafnium-178m	72	0.1 (3.7E 9)
Hafnium-179m	72	100 (3.7E 12)
Hafnium-180m	72	100 (3.7E 12)
Hafnium-181	72	10 (3.7E 11)
Hafnium-182m	72	100 (3.7E 12)
Hafnium-182	72	0.1 (3.7E 9)
Hafnium-183	72	100 (3.7E 12)
Hafnium-184	72	100 (3.7E 12)
Holmium-155	67	1000 (3.7E 13)

Appendix B: Radionuclides Listed Under CERCLA

Radionuclide Name	Atomic Number	Final RQ Curies (Bq)
Holmium-157	67	1000 (3.7E 13)
Holmium-159	67	1000 (3.7E 13)
Holmium-161	67	1000 (3.7E 13)
Holmium-162m	67	1000 (3.7E 13)
Holmium-162	67	1000 (3.7E 13)
Holmium-164m	67	1000 (3.7E 13)
Holmium-164	67	1000 (3.7E 13)
Holmium-166m	67	1 (3.7E 10)
Holmium-166	67	100 (3.7E 12)
Holmium-167	67	100 (3.7E 12)
Hydrogen-3	1	100 (3.7E 12)
Indium-109	49	100 (3.7E 12)
Indium-110 (69.1 min)	49	100 (3.7E 12)
Indium-110 (4.9 hr)	49	10 (3.7E 11)
Indium-111	49	100 (3.7E 12)
Indium-112	49	1000 (3.7E 13)
Indium-113m	49	1000 (3.7E 13)
Indium-114m	49	10 (3.7E 11)
Indium-115m	49	100 (3.7E 12)
Indium-115	49	0.1 (3.7E 9)
Indium-116m	49	100 (3.7E 12)
Indium-117m	49	100 (3.7E 12)
Indium-117	49	1000 (3.7E 13)
Indium-119m	49	1000 (3.7E 13)
Iodine-120m	53	100 (3.7E 12)
Iodine-120	53	10 (3.7E 11)
Iodine-121	53	100 (3.7E 12)
Iodine-123	53	10 (3.7E 11)
Iodine-124	53	0.1 (3.7E 9)
Iodine-125	53	0.01 (3.7E 8)
Iodine-126	53	0.01 (3.7E 8)
Iodine-128	53	1000 (3.7E 13)

Radionuclide Name	Atomic Number	Final RQ Curies (Bq)
Iodine-129	53	0.001 (3.7E 7)
Iodine-130	53	1 (3.7E 10)
Iodine-131	53	0.01 (3.7E 8)
Iodine-132m	53	10 (3.7E 11)
Iodine-132	53	10 (3.7E 11)
Iodine-133	53	0.1 (3.7E 9)
Iodine-134	53	100 (3.7E 12)
Iodine-135	53	10 (3.7E 11)
Iridium-182	77	1000 (3.7E 13)
Iridium-184	77	100 (3.7E 12)
Iridium-185	77	100 (3.7E 12)
Iridium-186	77	10 (3.7E 11)
Iridium-187	77	100 (3.7E 12)
Iridium-188	77	10 (3.7E 11)
Iridium-189	77	100 (3.7E 12)
Iridium-190m	77	1000 (3.7E 13)
Iridium-190	77	10 (3.7E 11)
Iridium-192m	77	100 (3.7E 12)
Iridium-192	77	10 (3.7E 11)
Iridium-194m	77	10 (3.7E 11)
Iridium-194	77	100 (3.7E 12)
Iridium-195m	77	100 (3.7E 12)
Iridium-195	77	1000 (3.7E 13)
Iron-52	26	100 (3.7E 12)
Iron-55	26	100 (3.7E 12)
Iron-59	26	10 (3.7E 11)
Iron-60	26	0.1 (3.7E 9)
Krypton-74	36	10 (3.7E 11)
Krypton-76	36	10 (3.7E 11)
Krypton-77	36	10 (3.7E 11)
Krypton-79	36	100 (3.7E 12)
Krypton-81	36	1000 (3.7E 13)
Krypton-83m	36	1000 (3.7E 13)

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Appendix B: Radionuclides Listed Under CERCLA

Radionuclide Name	Atomic Number	Final RQ Curies (Bq)
Krypton-85m	36	100 (3.7E 12)
Krypton-85	36	1000 (3.7E 13)
Krypton-87	36	10 (3.7E 11)
Krypton-88	36	10 (3.7E 11)
Lanthanum-131	57	1000 (3.7E 13)
Lanthanum-132	57	100 (3.7E 12)
Lanthanum-135	57	1000 (3.7E 13)
Lanthanum-137	57	10 (3.7E 11)
Lanthanum-138	57	1 (3.7E 10)
Lanthanum-140	57	10 (3.7E 11)
Lanthanum-141	57	1000 (3.7E 13)
Lanthanum-142	57	100 (3.7E 12)
Lanthanum-143	57	1000 (3.7E 13)
Lead-195m	82	1000 (3.7E 13)
Lead-198	82	100 (3.7E 12)
Lead-199	82	100 (3.7E 12)
Lead-200	82	100 (3.7E 12)
Lead-201	82	100 (3.7E 12)
Lead-202m	82	10 (3.7E 11)
Lead-202	82	1 (3.7E 10)
Lead-203	82	100 (3.7E 12)
Lead-205	82	100 (3.7E 12)
Lead-209	82	1000 (3.7E 13)
Lead-210	82	0.01 (3.7E 8)
Lead-211	82	100 (3.7E 12)
Lead-212	82	10 (3.7E 11)
Lead-214	82	100 (3.7E 12)
Lutetium-169	71	10 (3.7E 11)
Lutetium-170	71	10 (3.7E 11)
Lutetium-171	71	10 (3.7E 11)
Lutetium-172	71	10 (3.7E 11)
Lutetium-173	71	100 (3.7E 12)
Lutetium-174m	71	10 (3.7E 11)

Radionuclide Name	Atomic Number	Final RQ Curies (Bq)
Lutetium-174	71	10 (3.7E 11)
Lutetium-176m	71	1000 (3.7E 13)
Lutetium-176	71	1 (3.7E 10)
Lutetium-177m	71	10 (3.7E 11)
Lutetium-177	71	100 (3.7E 12)
Lutetium-178m	71	1000 (3.7E 13)
Lutetium-178	71	1000 (3.7E 13)
Lutetium-179	71	1000 (3.7E 13)
Magnesium-28	12	10 (3.7E 11)
Manganese-51	25	1000 (3.7E 13)
Manganese-52m	25	1000 (3.7E 13)
Manganese-52	25	10 (3.7E 11)
Manganese-53	25	1000 (3.7E 13)
Manganese-54	25	10 (3.7E 11)
Manganese-56	25	100 (3.7E 12)
Mendelevium-257	101	100 (3.7E 12)
Mendelevium-258	101	1 (3.7E 10)
Mercury-193m	80	10 (3.7E 11)
Mercury-193	80	100 (3.7E 12)
Mercury-194	80	0.1 (3.7E 9)
Mercury-195m	80	100 (3.7E 12)
Mercury-195	80	100 (3.7E 12)
Mercury-197m	80	1000 (3.7E 13)
Mercury-197	80	1000 (3.7E 13)
Mercury-199m	80	1000 (3.7E 13)
Mercury-203	80	10 (3.7E 11)
Molybdenum-90	42	100 (3.7E 12)
Molybdenum-93m	42	10 (3.7E 11)
Molybdenum-93	42	100 (3.7E 12)
Molybdenum-99	42	100 (3.7E 12)
Molybdenum-101	42	1000 (3.7E 13)
Neodymium-136	60	1000 (3.7E 13)
Neodymium-138	60	1000 (3.7E 13)

Appendix B: Radionuclides Listed Under CERCLA

Radionuclide Name	Atomic Number	Final RQ Curies (Bq)
Neodymium-139m	60	100 (3.7E 12)
Neodymium-139	60	1000 (3.7E 13)
Neodymium-141	60	1000 (3.7E 13)
Neodymium-147	60	10 (3.7E 11)
Neodymium-149	60	100 (3.7E 12)
Neodymium-151	60	1000 (3.7E 13)
Neptunium-232	93	1000 (3.7E 13)
Neptunium-233	93	1000 (3.7E 13)
Neptunium-234	93	10 (3.7E 11)
Neptunium-235	93	1000 (3.7E 13)
Neptunium-236 (1.2 E 5 yr)	93	0.1 (3.7E 9)
Neptunium-236 (22.5 hr)	93	100 (3.7E 12)
Neptunium-237	93	0.01 (3.7E 8)
Neptunium-238	93	10 (3.7E 11)
Neptunium-239	93	100 (3.7E 12)
Neptunium-240	93	100 (3.7E 12)
Nickel-56	28	10 (3.7E 11)
Nickel-57	28	10 (3.7E 11)
Nickel-59	28	100 (3.7E 12)
Nickel-63	28	100 (3.7E 12)
Nickel-65	28	100 (3.7E 12)
Nickel-66	28	10 (3.7E 11)
Niobium-88	41	100 (3.7E 12)
Niobium-89 (66 min)	41	100 (3.7E 12)
Niobium-89 (122 min)	41	100 (3.7E 12)
Niobium-90	41	10 (3.7E 11)
Niobium-93m	41	100 (3.7E 12)
Niobium-94	41	10 (3.7E 11)
Niobium-95m	41	100 (3.7E 12)
Niobium-95	41	10 (3.7E 11)
Niobium-96	41	10 (3.7E 11)

Radionuclide Name	Atomic Number	Final RQ Curies (Bq)
Niobium-97	41	100 (3.7E 12)
Niobium-98	41	1000 (3.7E 13)
Osmium-180	76	1000 (3.7E 13)
Osmium-181	76	100 (3.7E 12)
Osmium-182	76	100 (3.7E 12)
Osmium-185	76	10 (3.7E 11)
Osmium-189m	76	1000 (3.7E 13)
Osmium-191m	76	1000 (3.7E 13)
Osmium-191	76	100 (3.7E 12)
Osmium-193	76	100 (3.7E 12)
Osmium-194	76	1 (3.7E 10)
Palladium-100	46	100 (3.7E 12)
Palladium-101	46	100 (3.7E 12)
Palladium-103	46	100 (3.7E 12)
Palladium-107	46	100 (3.7E 12)
Palladium-109	46	1000 (3.7E 13)
Phosphorus-32	15	0.1 (3.7E 9)
Phosphorus-33	15	1 (3.7E 10)
Platinum-186	78	100 (3.7E 12)
Platinum-188	78	100 (3.7E 12)
Platinum-189	78	100 (3.7E 12)
Platinum-191	78	100 (3.7E 12)
Platinum-193m	78	100 (3.7E 12)
Platinum-193	78	1000 (3.7E 13)
Platinum-195m	78	100 (3.7E 12)
Platinum-197m	78	1000 (3.7E 13)
Platinum-197	78	1000 (3.7E 13)
Platinum-199	78	1000 (3.7E 13)
Platinum-200	78	100 (3.7E 12)
Plutonium-234	94	1000 (3.7E 13)
Plutonium-235	94	1000 (3.7E 13)
Plutonium-236	94	0.1 (3.7E 9)
Plutonium-237	94	1000 (3.7E 13)

Appendix B: Radionuclides Listed Under CERCLA

Radionuclide Name	Atomic Number	Final RQ Curies (Bq)
Plutonium-238	94	0.01 (3.7E 8)
Plutonium-239	94	0.01 (3.7E 8)
Plutonium-240	94	0.01 (3.7E 8)
Plutonium-241	94	1 (3.7E 10)
Plutonium-242	94	0.01 (3.7E 8)
Plutonium-243	94	1000 (3.7E 13)
Plutonium-244	94	0.01 (3.7E 8)
Plutonium-245	94	100 (3.7E 12)
Polonium-203	84	100 (3.7E 12)
Polonium-205	84	100 (3.7E 12)
Polonium-207	84	10 (3.7E 11)
Polonium-210	84	0.01 (3.7E 8)
Potassium-40	19	1 (3.7E 10)
Potassium-42	19	100 (3.7E 12)
Potassium-43	19	10 (3.7E 11)
Potassium-44	19	100 (3.7E 12)
Potassium-45	19	1000 (3.7E 13)
Praseodymium-136	59	1000 (3.7E 13)
Praseodymium-137	59	1000 (3.7E 13)
Praseodymium-138m	59	100 (3.7E 12)
Praseodymium-139	59	1000 (3.7E 13)
Praseodymium-142m	59	1000 (3.7E 13)
Praseodymium-142	59	100 (3.7E 12)
Praseodymium-143	59	10 (3.7E 11)
Praseodymium-144	59	1000 (3.7E 13)
Praseodymium-145	59	1000 (3.7E 13)
Praseodymium-147	59	1000 (3.7E 13)

Radionuclide Name	Atomic Number	Final RQ Curies (Bq)
Promethium-141	61	1000 (3.7E 13)
Promethium-143	61	100 (3.7E 12)
Promethium-144	61	10 (3.7E 11)
Promethium-145	61	100 (3.7E 12)
Promethium-146	61	10 (3.7E 11)
Promethium-147	61	10 (3.7E 11)
Promethium-148m	61	10 (3.7E 11)
Promethium-148	61	10 (3.7E 11)
Promethium-149	61	100 (3.7E 12)
Promethium-150	61	100 (3.7E 12)
Promethium-151	61	100 (3.7E 12)
Protactinium-227	91	100 (3.7E 12)
Protactinium-228	91	10 (3.7E 11)
Protactinium-230	91	10 (3.7E 11)
Protactinium-231	91	0.01 (3.7E 8)
Protactinium-232	91	10 (3.7E 11)
Protactinium-233	91	100 (3.7E 12)
Protactinium-234	91	10 (3.7E 11)
Radium-223	88	1 (3.7E 10)
Radium-224	88	10 (3.7E 11)
Radium-225	88	1 (3.7E 10)
Radium-226Φ	88	0.1 (3.7E 9)
Radium-227	88	1000 (3.7E 13)
Radium-228	88	0.1 (3.7E 9)
Radon-220	86	0.1 (3.7E 9)
Radon-222	86	0.1 (3.7E 9)
Rhenium-177	75	1000 (3.7E 13)
Rhenium-178	75	1000 (3.7E 13)
Rhenium-181	75	100 (3.7E 12)
Rhenium-182 (12.7 hr)	75	10 (3.7E 11)
Rhenium-182 (64.0 hr)	75	10 (3.7E 11)
Rhenium-184m	75	10 (3.7E 11)

Appendix B: Radionuclides Listed Under CERCLA

Radionuclide Name	Atomic Number	Final RQ Curies (Bq)
Rhenium-184	75	10 (3.7E 11)
Rhenium-186m	75	10 (3.7E 11)
Rhenium-186	75	100 (3.7E 12)
Rhenium-187	75	1000 (3.7E 13)
Rhenium-188m	75	1000 (3.7E 13)
Rhenium-188	75	1000 (3.7E 13)
Rhenium-189	75	1000 (3.7E 13)
Rhodium-99m	45	100 (3.7E 12)
Rhodium-99	45	10 (3.7E 11)
Rhodium-100	45	10 (3.7E 11)
Rhodium-101m	45	100 (3.7E 12)
Rhodium-101	45	10 (3.7E 11)
Rhodium-102m	45	10 (3.7E 11)
Rhodium-102	45	10 (3.7E 11)
Rhodium-103m	45	1000 (3.7E 13)
Rhodium-105	45	100 (3.7E 12)
Rhodium-106m	45	10 (3.7E 11)
Rhodium-107	45	1000 (3.7E 13)
Rubidium-79	37	1000 (3.7E 13)
Rubidium-81m	37	1000 (3.7E 13)
Rubidium-81	37	100 (3.7E 12)
Rubidium-82m	37	10 (3.7E 11)
Rubidium-83	37	10 (3.7E 11)
Rubidium-84	37	10 (3.7E 11)
Rubidium-86	37	10 (3.7E 11)
Rubidium-88	37	1000 (3.7E 13)
Rubidium-89	37	1000 (3.7E 13)
Rubidium-87	37	10 (3.7E 11)
Ruthenium-94	44	1000 (3.7E 13)
Ruthenium-97	44	100 (3.7E 12)
Ruthenium-103	44	10 (3.7E 11)
Ruthenium-105	44	100 (3.7E 12)
Ruthenium-106	44	1 (3.7E 10)

Radionuclide Name	Atomic Number	Final RQ Curies (Bq)
Samarium-141m	62	1000 (3.7E 13)
Samarium-141	62	1000 (3.7E 13)
Samarium-142	62	1000 (3.7E 13)
Samarium-145	62	100 (3.7E 12)
Samarium-146	62	0.01 (3.7E 8)
Samarium-147	62	0.01 (3.7E 8)
Samarium-151	62	10 (3.7E 11)
Samarium-153	62	100 (3.7E 12)
Samarium-155	62	1000 (3.7E 13)
Samarium-156	62	100 (3.7E 12)
Scandium-43	21	1000 (3.7E 13)
Scandium-44m	21	10 (3.7E 11)
Scandium-44	21	100 (3.7E 12)
Scandium-46	21	10 (3.7E 11)
Scandium-47	21	100 (3.7E 12)
Scandium-48	21	10 (3.7E 11)
Scandium-49	21	1000 (3.7E 13)
Selenium-70	34	1000 (3.7E 13)
Selenium-73m	34	100 (3.7E 12)
Selenium-73	34	10 (3.7E 11)
Selenium-75	34	10 (3.7E 11)
Selenium-79	34	10 (3.7E 11)
Selenium-81m	34	1000 (3.7E 13)
Selenium-81	34	1000 (3.7E 13)
Selenium-83	34	1000 (3.7E 13)
Silicon-31	14	1000 (3.7E 13)
Silicon-32	14	1 (3.7E 10)
Silver-102	47	100 (3.7E 12)
Silver-103	47	1000 (3.7E 13)
Silver-104m	47	1000 (3.7E 13)
Silver-104	47	1000 (3.7E 13)
Silver-105	47	10 (3.7E 11)
Silver-106m	47	10 (3.7E 11)

Appendix B: Radionuclides Listed Under CERCLA

Radionuclide Name	Atomic Number	Final RQ Curies (Bq)
Silver-106	47	1000 (3.7E 13)
Silver-108m	47	10 (3.7E 11)
Silver-110m	47	10 (3.7E 11)
Silver-111	47	10 (3.7E 11)
Silver-112	47	100 (3.7E 12)
Silver-115	47	1000 (3.7E 13)
Sodium-22	11	10 (3.7E 11)
Sodium-24	11	10 (3.7E 11)
Strontium-80	38	100 (3.7E 12)
Strontium-81	38	1000 (3.7E 13)
Strontium-83	38	100 (3.7E 12)
Strontium-85m	38	1000 (3.7E 13)
Strontium-85	38	10 (3.7E 11)
Strontium-87m	38	100 (3.7E 12)
Strontium-89	38	10 (3.7E 11)
Strontium-90	38	0.1 (3.7E 9)
Strontium-91	38	10 (3.7E 11)
Strontium-92	38	100 (3.7E 12)
Sulfur-35	16	1 (3.7E 10)
Tantalum-172	73	100 (3.7E 12)
Tantalum-173	73	100 (3.7E 12)
Tantalum-174	73	100 (3.7E 12)
Tantalum-175	73	100 (3.7E 12)
Tantalum-176	73	10 (3.7E 11)
Tantalum-177	73	1000 (3.7E 13)
Tantalum-178	73	1000 (3.7E 13)
Tantalum-179	73	1000 (3.7E 13)
Tantalum-180m	73	1000 (3.7E 13)
Tantalum-180	73	100 (3.7E 12)
Tantalum-182m	73	1000 (3.7E 13)
Tantalum-182	73	10 (3.7E 11)
Tantalum-183	73	100 (3.7E 12)
Tantalum-184	73	10 (3.7E 11)

Radionuclide Name	Atomic Number	Final RQ Curies (Bq)
Tantalum-185	73	1000 (3.7E 13)
Tantalum-186	73	1000 (3.7E 13)
Technetium-93m	43	1000 (3.7E 13)
Technetium-93	43	100 (3.7E 12)
Technetium-94m	43	100 (3.7E 12)
Technetium-94	43	10 (3.7E 11)
Technetium-96m	43	1000 (3.7E 13)
Technetium-96	43	10 (3.7E 11)
Technetium-97m	43	100 (3.7E 12)
Technetium-97	43	100 (3.7E 12)
Technetium-98	43	10 (3.7E 11)
Technetium-99m	43	100 (3.7E 12)
Technetium-99	43	10 (3.7E 11)
Technetium-101	43	1000 (3.7E 13)
Technetium-104	43	1000 (3.7E 13)
Tellurium-116	52	1000 (3.7E 13)
Tellurium-121m	52	10 (3.7E 11)
Tellurium-121	52	10 (3.7E 11)
Tellurium-123m	52	10 (3.7E 11)
Tellurium-123	52	10 (3.7E 11)
Tellurium-125m	52	10 (3.7E 11)
Tellurium-127m	52	10 (3.7E 11)
Tellurium-127	52	1000 (3.7E 13)
Tellurium-129m	52	10 (3.7E 11)
Tellurium-129	52	1000 (3.7E 13)
Tellurium-131m	52	10 (3.7E 11)
Tellurium-131	52	1000 (3.7E 13)
Tellurium-132	52	10 (3.7E 11)
Tellurium-133m	52	1000 (3.7E 13)
Tellurium-133	52	1000 (3.7E 13)
Tellurium-134	52	1000 (3.7E 13)
Terbium-147	65	100 (3.7E 12)
Terbium-149	65	100 (3.7E 12)

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Appendix B: Radionuclides Listed Under CERCLA

Radionuclide Name	Atomic Number	Final RQ Curies (Bq)
Terbium-150	65	100 (3.7E 12)
Terbium-151	65	10 (3.7E 11)
Terbium-153	65	100 (3.7E 12)
Terbium-154	65	10 (3.7E 11)
Terbium-155	65	100 (3.7E 12)
Terbium-156m (5.0 hr)	65	1000 (3.7E 13)
Terbium-156m (24.4 hr)	65	1000 (3.7E 13)
Terbium-156	65	10 (3.7E 11)
Terbium-157	65	100 (3.7E 12)
Terbium-158	65	10 (3.7E 11)
Terbium-160	65	10 (3.7E 11)
Terbium-161	65	100 (3.7E 12)
Thallium-194m	81	100 (3.7E 12)
Thallium-194	81	1000 (3.7E 13)
Thallium-195	81	100 (3.7E 12)
Thallium-197	81	100 (3.7E 12)
Thallium-198m	81	100 (3.7E 12)
Thallium-198	81	10 (3.7E 11)
Thallium-199	81	100 (3.7E 12)
Thallium-200	81	10 (3.7E 11)
Thallium-201	81	1000 (3.7E 13)
Thallium-202	81	10 (3.7E 11)
Thallium-204	81	10 (3.7E 11)
Thorium-226	90	100 (3.7E 12)
Thorium-227	90	1 (3.7E 10)
Thorium-228	90	0.01 (3.7E 8)
Thorium-229	90	0.001 (3.7E 7)
Thorium-230	90	0.01 (3.7E 8)
Thorium-231	90	100 (3.7E 12)
Thorium-232Φ	90	0.001 (3.7E 7)
Thorium-234	90	100 (3.7E 12)
Thulium-162	69	1000 (3.7E 13)

Radionuclide Name	Atomic Number	Final RQ Curies (Bq)
Thulium-166	69	10 (3.7E 11)
Thulium-167	69	100 (3.7E 12)
Thulium-170	69	10 (3.7E 11)
Thulium-171	69	100 (3.7E 12)
Thulium-172	69	100 (3.7E 12)
Thulium-173	69	100 (3.7E 12)
Thulium-175	69	1000 (3.7E 13)
Tin-110	50	100 (3.7E 12)
Tin-111	50	1000 (3.7E 13)
Tin-113	50	10 (3.7E 11)
Tin-117m	50	100 (3.7E 12)
Tin-119m	50	10 (3.7E 11)
Tin-121m	50	10 (3.7E 11)
Tin-121	50	1000 (3.7E 13)
Tin-123m	50	1000 (3.7E 13)
Tin-123	50	10 (3.7E 11)
Tin-125	50	10 (3.7E 11)
Tin-126	50	1 (3.7E 10)
Tin-127	50	100 (3.7E 12)
Tin-128	50	1000 (3.7E 13)
Titanium-44	22	1 (3.7E 10)
Titanium-45	22	1000 (3.7E 13)
Tungsten-176	74	1000 (3.7E 13)
Tungsten-177	74	100 (3.7E 12)
Tungsten-178	74	100 (3.7E 12)
Tungsten-179	74	1000 (3.7E 13)
Tungsten-181	74	100 (3.7E 12)
Tungsten-185	74	10 (3.7E 11)
Tungsten-187	74	100 (3.7E 12)
Tungsten-188	74	10 (3.7E 11)
Uranium-230	92	1 (3.7E 10)
Uranium-231	92	1000 (3.7E 13)
Uranium-232	92	0.01 (3.7E 8)

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Appendix B: Radionuclides Listed Under CERCLA

Radionuclide Name	Atomic Number	Final RQ Curies (Bq)
Uranium-233	92	0.1 (3.7E 9)
Uranium-234φ	92	0.1 (3.7E 9)
Uranium-235φ	92	0.1 (3.7E 9)
Uranium-236	92	0.1 (3.7E 9)
Uranium-237	92	100 (3.7E 12)
Uranium-238φ	92	0.1& (3.7E 9)
Uranium-239	92	1000 (3.7E 13)
Uranium-240	92	1000 (3.7E 13)
Vanadium-47	23	1000 (3.7E 13)
Vanadium-48	23	10 (3.7E 11)
Vanadium-49	23	1000 (3.7E 13)
Xenon-120	54	100 (3.7E 12)
Xenon-121	54	10 (3.7E 11)
Xenon-122	54	100 (3.7E 12)
Xenon-123	54	10 (3.7E 11)
Xenon-125	54	100 (3.7E 12)
Xenon-127	54	100 (3.7E 12)
Xenon-129m	54	1000 (3.7E 13)
Xenon-131m	54	1000 (3.7E 13)
Xenon-133m	54	1000 (3.7E 13)
Xenon-133	54	1000 (3.7E 13)
Xenon-135m	54	10 (3.7E 11)
Xenon-135	54	100 (3.7E 12)
Xenon-138	54	10 (3.7E 11)
Ytterbium-162	70	1000 (3.7E 13)
Ytterbium-166	70	10 (3.7E 11)
Ytterbium-167	70	1000 (3.7E 13)
Ytterbium-169	70	10 (3.7E 11)
Ytterbium-175	70	100 (3.7E 12)
Ytterbium-177	70	1000 (3.7E 13)
Ytterbium-178	70	1000 (3.7E 13)
Yttrium-86m	39	1000 (3.7E 13)
Yttrium-86	39	10 (3.7E 11)

Radionuclide Name	Atomic Number	Final RQ Curies (Bq)
Yttrium-87	39	10 (3.7E 11)
Yttrium-88	39	10 (3.7E 11)
Yttrium-90m	39	100 (3.7E 12)
Yttrium-90	39	10 (3.7E 11)
Yttrium-91m	39	1000 (3.7E 13)
Yttrium-91	39	10 (3.7E 11)
Yttrium-92	39	100 (3.7E 12)
Yttrium-93	39	100 (3.7E 12)
Yttrium-94	39	1000 (3.7E 13)
Yttrium-95	39	1000 (3.7E 13)
Zinc-62	30	100 (3.7E 12)
Zinc-63	30	1000 (3.7E 13)
Zinc-65	30	10 (3.7E 11)
Zinc-69m	30	100 (3.7E 12)
Zinc-69	30	1000 (3.7E 13)
Zinc-71m	30	100 (3.7E 12)
Zinc-72	30	100 (3.7E 12)
Zirconium-86	40	100 (3.7E 12)
Zirconium-88	40	10 (3.7E 11)
Zirconium-89	40	100 (3.7E 12)
Zirconium-93	40	1 (3.7E 10)
Zirconium-95	40	10 (3.7E 11)
Zirconium-97	40	10 (3.7E 11)

Appendix B: Radionuclides Listed Under CERCLA

NOTES:

Ci—Curie. The curie represents a rate of radioactive decay. One curie is the quantity of any radioactive nuclide which undergoes 3.7×10^{10} disintegrations per second.

Bq—Becquerel. The becquerel represents a rate of radioactive decay. One becquerel is the quantity of any radioactive nuclide which undergoes one disintegration per second. One curie is equal to 3.7×10^{10} becquerel.

@—Final RQs for all radionuclides apply to chemical compounds containing the radionuclides and elemental forms regardless of the diameter of pieces of solid material.

&—The adjusted RQ of one curie applies to all radionuclides not otherwise listed. Whenever the RQs in the Consolidated List of Chemicals subject to EPCRA, CERCLA and Section 112(r) of CAA and this Appendix B are in conflict, the lowest RQ shall apply. For example, uranyl acetate and uranyl nitrate have adjusted RQs shown in the CAS number ordered chemical list and the alphabetical chemical list (Appendix A) of 100 pounds, equivalent to about one-tenth the RQ level for uranium-238 listed in this appendix.

E—Exponent to the base 10. For example, 1.3×10^2 is equal to 130 while 1.3×10^3 is equal to 1300.

m—Signifies a nuclear isomer which is a radionuclide in a higher energy metastable state relative to the parent isotope.

φ—Notification requirements for releases of mixtures or solutions of radionuclides can be found in 40 CFR §302.6(b)(2). Final RQs for the following four common radionuclide mixtures are provided: radium-226 in secular equilibrium with its daughters (0.053 curie); natural uranium (0.1 curie); natural uranium in secular equilibrium with its daughters (0.052 curie); and natural thorium in secular equilibrium with its daughters (0.011 curie)

Appendix C: RCRA Waste Streams and Unlisted Hazardous Wastes[Top](#)**Appendix C: RCRA Waste Streams and Unlisted Hazardous Wastes****THE LIST BELOW CONTAINS RCRA WASTE STREAMS AND UNLISTED HAZARDOUS WASTES.****THE DESCRIPTIONS OF THE WASTE STREAMS HAVE BEEN TRUNCATED.****THE LIST SHOULD BE USED FOR REFERENCE ONLY.****COMPLIANCE INFORMATION CAN BE FOUND IN 40 CFR PART 302 AND TABLE 302.4**

RCRA CODE	RQ	NAME
F001	10	The following spent halogenated solvents used in degreasing:
	100	(a) Tetrachloroethylene (CAS No. 127-18-4, RCRA Waste No. U210)
	100	(b) Trichloroethylene (CAS No. 79-01-6, RCRA Waste No. U228)
	1,000	(c) Methylene chloride (CAS No. 75-09-2, RCRA Waste No. U080)
	1,000	(d) 1,1,1-Trichloroethane (CAS No. 71-55-6, RCRA Waste No. U226)
	10	(e) Carbon tetrachloride (CAS No. 56-23-5, RCRA Waste No. U211)
	5,000	(f) Chlorinated fluorocarbons
F002	10	The following spent halogenated solvents:
	100	(a) Tetrachloroethylene (CAS No. 127-18-4, RCRA Waste No. U210)
	1,000	(b) Methylene chloride (CAS No. 75-09-2, RCRA Waste No. U080)
	100	(c) Trichloroethylene (CAS No. 79-01-6, RCRA Waste No. U228)
	1,000	(d) 1,1,1-Trichloroethane (CAS No. 71-55-6, RCRA Waste No. U226)
	100	(e) Chlorobenzene (CAS No. 108-90-7, RCRA Waste No. U037)
	5,000	(f) 1,1,2-Trichloro-1,2,2-trifluoroethane (CAS No. 76-13-1)
	100	(g) o-Dichlorobenzene (CAS No. 95-50-1, RCRA Waste No. U070)
	5,000	(h) Trichlorofluoromethane (CAS No. 75-69-4, RCRA Waste No. U121)
	100	(i) 1,1,2-Trichloroethane (CAS No. 79-00-5, RCRA Waste No. U227)
F003	100	The following spent non-halogenated solvents and still bottoms from recovery:
	1,000	(a) Xylene (CAS No. 1330-20-7, RCRA Waste No. U239)
	5,000	(b) Acetone (CAS No. 67-64-1, RCRA Waste No. U002)
	5,000	(c) Ethyl acetate (CAS No. 141-78-6, RCRA Waste No. U112)
	1,000	(d) Ethylbenzene (CAS No. 100-41-4)
	100	(e) Ethyl ether (CAS No. 60-29-7, RCRA Waste No. U117)
	5,000	(f) Methyl isobutyl ketone (CAS No. 108-10-1, RCRA Waste No. U161)
	5,000	(g) n-Butyl alcohol (CAS No. 71-36-3, RCRA Waste No. U031)
	5,000	(h) Cyclohexanone (CAS No. 108-94-1, RCRA Waste No. U057)
	5,000	(i) Methanol (CAS No. 67-56-1, RCRA Waste No. U154)
F004	100	The following spent non-halogenated solvents and still bottoms from recovery:
	100	(a) Cresols/cresylic acid (CAS No. 1319-77-3, RCRA Waste No. U052)
	1,000	(b) Nitrobenzene (CAS No. 98-95-3, RCRA Waste No. U169)

Appendix C: RCRA Waste Streams and Unlisted Hazardous Wastes

F005	100	The following spent non-halogenated solvents and still bottoms from recovery:
	1,000	(a) Toluene (CAS No. 108-88-3, RCRA Waste No. U220)
	5,000	(b) Methyl ethyl ketone (CAS No. 78-93-3, RCRA Waste No. U159)
	100	(c) Carbon disulfide (CAS No. 75-15-0, RCRA Waste No. P022)
	5,000	(d) Isobutanol (CAS No. 78-83-1, RCRA Waste No. U140)
	1,000	(e) Pyridine (CAS No. 110-86-1, RCRA Waste No. U196)
F006	10	Wastewater treatment sludges from electroplating operations (w/some exceptions)
F007	10	Spent cyanide plating bath solns. from electroplating
F008	10	Plating bath residues from electroplating where cyanides are used
F009	10	Spent stripping/cleaning bath solns. from electroplating where cyanides are used
F010	10	Quenching bath residues from metal heat treating where cyanides are used
F011	10	Spent cyanide soln. from salt bath pot cleaning from metal heat treating
F012	10	Quenching wastewater sludges from metal heat treating where cyanides are used
F019	10	Wastewater treatment sludges from chemical conversion aluminum coating
F020	1	Wastes from production or use of tri/tetrachlorophenol or derivative intermediates
F021	1	Wastes from production or use of pentachlorophenol or intermediates for derivatives
F022	1	Wastes from use of tetra/penta/hexachlorobenzenes under alkaline conditions
F023	1	Wastes from mat. production on equipment previously used for tri/tetrachlorophenol
F024	1	Wastes from production of chlorinated aliphatic hydrocarbons (C1-C5)
F025	1	Lights ends, filters from production of chlorinated aliphatic hydrocarbons (C1-C5)
F026	1	Waste from equipment previously used to production tetra/penta/hexachlorobenzenes
F027	1	Discarded formulations containing tri/tetra/pentachlorophenols or derivatives
F028	1	Residues from incineration of soil contaminated w/ F020,F021,F022,F023,F026,F027
F032	1	Wastewaters, process residuals from wood preserving using chlorophenolic solns.
F034	1	Wastewaters, process residuals from wood preserving using creosote formulations
F035	1	Wastewaters, process residuals from wood preserving using arsenic or chromium
F037	1	Petroleum refinery primary oil/water/solids separation sludge
F038	1	Petroleum refinery secondary (emulsified) oil/water/solids separation sludge
F039	1	Multisource leachate
K001	1	Wastewater treatment sludge from creosote/pentachlorophenol wood preserving
K002	10	Wastewater treatment sludge from production of chrome yellow and orange pigments
K003	10	Wastewater treatment sludge from production of molybdate orange pigments
K004	10	Wastewater treatment sludge from production of zinc yellow pigments
K005	10	Wastewater treatment sludge from production of chrome green pigments
K006	10	Wastewater treatment sludge from production of chrome oxide green pigments
K007	10	Wastewater treatment sludge from production of iron blue pigments
K008	10	Oven residue from production of chrome oxide green pigments
K009	10	Dist. bottoms from production of acetaldehyde from ethylene
K010	10	Dist. side cuts from production of acetaldehyde from ethylene

Appendix C: RCRA Waste Streams and Unlisted Hazardous Wastes

K011	10	Bottom stream from wastewater stripper in acrylonitrile production
K013	10	Bottom stream from acetonitrile column in acrylonitrile production
K014	5,000	Bottoms from acetonitrile purification column in acrylonitrile production
K015	10	Still bottoms from the dist. of benzyl chloride
K016	1	Heavy ends or dist. residues from production of carbon tetrachloride
K017	10	Heavy ends from the purification column in epichlorohydrin production
K018	1	Heavy ends from the fractionation column in ethyl chloride production
K019	1	Heavy ends from the dist. of ethylene dichloride during its production
K020	1	Heavy ends from the dist. of vinyl chloride during production of the monomer
K021	10	Aqueous spent antimony catalyst waste from fluoromethanes production
K022	1	Dist. bottom tars from production of phenol/acetone from cumene
K023	5,000	Dist. light ends from production of phthalic anhydride from naphthalene
K024	5,000	Dist. bottoms from production of phthalic anhydride from naphthalene
K025	10	Dist. bottoms from production of nitrobenzene by nitration of benzene
K026	1,000	Stripping still tails from the production of methyl ethyl pyridines
K027	10	Centrifuge/dist. residues from toluene diisocyanate production
K028	1	Spent catalyst from hydrochlorinator reactor in production of 1,1,1-trichloroethane
K029	1	Waste from product steam stripper in production of 1,1,1-trichloroethane
K030	1	Column bottoms/heavy ends from production of trichloroethylene and perchloroethylene
K031	1	By-product salts generated in the production of MSMA and cacodylic acid
K032	10	Wastewater treatment sludge from the production of chlordane
K033	10	Wastewater/scrubwater from chlorination of cyclopentadiene in chlordane production
K034	10	Filter solids from filtration of hexachlorocyclopentadiene in chlordane production
K035	1	Wastewater treatment sludges from the production of creosote
K036	1	Still bottoms from toluene reclamation distillation in disulfoton production
K037	1	Wastewater treatment sludges from the production of disulfoton
K038	10	Wastewater from the washing and stripping of phorate production
K039	10	Filter cake from filtration of diethylphosphorodithioic acid in phorate production
K040	10	Wastewater treatment sludge from the production of phorate
K041	1	Wastewater treatment sludge from the production of toxaphene
K042	10	Heavy ends/residues from dist. of tetrachlorobenzene in 2,4,5-T production
K043	10	2,6-Dichlorophenol waste from the production of 2,4-D
K044	10	Wastewater treatment sludge from manuf. and processing of explosives
K045	10	Spent carbon from treatment of wastewater containing explosives
K046	10	Wastewater sludge from manuf., formulating, loading of lead-based initiating compd
K047	10	Pink/red water from TNT operations
K048	10	Dissolved air flotation (DAF) float from the petroleum refining industry
K049	10	Slop oil emulsion solids from the petroleum refining industry
K050	10	Heat exchanger bundle cleaning sludge from petroleum refining industry
K051	10	API separator sludge from the petroleum refining industry
K052	10	Tank bottoms (leaded) from the petroleum refining industry
K060	1	Ammonia still lime sludge from coking operations
K061	10	Emission control dust/sludge from primary production of steel in electric furnaces

Appendix C: RCRA Waste Streams and Unlisted Hazardous Wastes

K062	10	Spent pickle liquor generated by steel finishing (SIC codes 331 and 332)
K069	10	Emission control dust/sludge from secondary lead smelting
K071	1	Brine purification muds from mercury cell process in chlorine production
K073	10	Chlorinated hydrocarbon waste from diaphragm cell process in chlorine production
K083	100	Distillation bottoms from aniline extraction
K084	1	Wastewater sludges from production of veterinary pharm. from arsenic compds.
K085	10	Distillation or fractionation column bottoms in production of chlorobenzenes
K086	10	Wastes/sludges from production of inks from chromium and lead-containing substances
K087	100	Decanter tank tar sludge from coking operations
K088	10	Spent potliners from primary aluminum reduction
K093	5,000	Dist. light ends from production of phthalic anhydride by ortho-xylene
K094	5,000	Dist. bottoms in production of phthalic anhydride by ortho-xylene
K095	100	Distillation bottoms in production of 1,1,1-trichloroethane
K096	100	Heavy ends from dist. column in production of 1,1,1-trichloroethane
K097	1	Vacuum stripper discharge from the chlordane chlorinator in production of chlordane
K098	1	Untreated process wastewater from the production of toxaphene
K099	10	Untreated wastewater from the production of 2,4-D
K100	10	Waste leaching soln from emission control dust/sludge in secondary lead smelting
K101	1	Dist. tar residue from aniline in production of veterinary pharm. from arsenic compd.
K102	1	Residue from activated carbon in production of veterinary pharm. from arsenic compds.
K103	100	Process residues from aniline extraction from the production of aniline
K104	10	Combined wastewater streams generated from production of nitrobenzene/aniline
K105	10	Aqueous stream from washing in production of chlorobenzenes
K106	1	Wastewater treatment sludge from mercury cell process in chlorine production
K107	10	Column bottoms from separation in production of UDMH from carboxylic acid hydrazides
K108	10	Condensed column overheads and vent gas from production of UDMH from -COOH hydrazides
K109	10	Spent filter cartridges from purif. of UDMH production from carboxylic acid hydrazides
K110	10	Condensed column overheads from separation in UDMH production from -COOH hydrazides
K111	10	Product washwaters from production of dinitrotoluene via nitration of toluene
K112	10	Reaction by-product water from drying in toluenediamine prod from dinitrotoluene
K113	10	Condensed liquid light ends from purification of toluenediamine during its production
K114	10	Vicinals from purification of toluenediamine during its production from dinitrotoluene
K115	10	Heavy ends from toluenediamine purification during production from dinitrotoluene
K116	10	Organic condensate from solvent recovery system in production of toluene diisocyanate
K117	1	Wastewater from vent gas scrubber in ethylene bromide prod by ethene bromination
K118	1	Spent absorbent solids in purification of ethylene dibromide in its production
K123	10	Process wastewater from the production of ethylenebisdithiocarbamic acid and salts
K124	10	Reactor vent scrubber water from prod of ethylenebisdithiocarbamic acid and salts
K125	10	Filtration/other solids from production of ethylenebisdithiocarbamic acid and salts
K126	10	Dust/sweepings from the production of ethylenebisdithiocarbamic acid and salts
K131	100	Wastewater and spent sulfuric acid from the production of methyl bromide
K132	1,000	Spent absorbent and wastewater solids from the production of methyl bromide

Appendix C: RCRA Waste Streams and Unlisted Hazardous Wastes

K136	1	Still bottoms from ethylene dibromide purif. in production by ethene bromination
K141	1	Process residues from coal tar recovery in coking
K142	1	Tar storage tank residues from coke production from coal or recovery of coke by-prods
K143	1	Process residues from recovery of light oil in coking
K144	1	Wastewater residues from light oil refining in coking
K145	1	Residues from naphthalene collection and recovery from coke by-products
K147	1	Tar storage tank residues from coal tar refining in coking
K148	1	Residues from coal tar distillation, including still bottoms, in coking
K149	10	Distillation bottoms from the production of chlorinated toluenes/benzoyl chlorides
K150	10	Organic residuals from Cl gas and HCl recovery from chlorinated toluene production
K151	10	Wastewater treatment sludge from production of chlorotoluenes/benzoyl chlorides
K156	10	Organic waste from production of carbamates and carbamoyl oximes
K157	10	Wastewaters from production of carbamates and carbamoyl oximes (not sludges)
K158	10	Bag house dusts & filter/separation solids from prod of carbamates, carb oximes
K159	10	Organics from treatment of thiocarbamate waste
K161	1	Purif. solids/bag house dust/sweepings from prod of dithiocarbamate acids/salts
K169 ^f	10	Crude oil storage tank sediment from refining operations
K170 ^f	1	Clarified slurry oil tank sediment of in-line filter/separation solids
K171 ^f	1	Spent hydrotreating catalyst
K172 ^f	1	Spent hydrorefining catalyst
K174 ^f	1	Wastewater treatment sludges from the production of ethylene dichloride or vinyl chloride monomer, (including sludges that result from commingled EDC or VCM wastewater and other wastewater), unless the sludges meet certain disposal conditions. (See 40 CFR 261.32)
K175 ^f	1	Wastewater treatment sludges from the production vinyl chloride monomer using mercuric chloride catalyst in an acetylene-based process (See 40 CFR 261.32)
K176	1	Baghouse filters from the production of antimony oxide, including filters from the production of intermediates (e.g., antimony metal or crude antimony oxide)
K177	5000	Slag from the production of antimony oxide that is speculatively accumulated or disposed, including slag from the production of intermediates (e.g., antimony metal or crude antimony oxide)
K178	1000	Residues from manufacturing and manufacturing-site storage of ferric chloride from acids formed during the production of titanium dioxide using the chloride-ilmenite process
K181	1*	Non-wastewaters generated from the production of certain dyes, pigments, and FD&C colorants, exceeding constituent mass loading levels, subject to disposal exceptions in 40 CFR 261.32
D001	100	Unlisted hazardous wastes characteristic of ignitability
D002	100	Unlisted hazardous wastes characteristic of corrosivity
D003	100	Unlisted hazardous wastes characteristic of reactivity
		Unlisted hazardous wastes characteristic of toxicity:
D004	1	Arsenic
D005	1,000	Barium
D006	10	Cadmium
D007	10	Chromium
D008	10	Lead
D009	1	Mercury

Appendix C: RCRA Waste Streams and Unlisted Hazardous Wastes

D010	10	Selenium
D011	1	Silver
D012	1	Endrin
D013	1	Lindane
D014	1	Methoxychlor
D015	1	Toxaphene
D016	100	2,4-D
D017	100	2,4,5-TP
D018	10	Benzene
D019	10	Carbon tetrachloride
D020	1	Chlordane
D021	100	Chlorobenzene
D022	10	Chloroform
D023	100	o-Cresol
D024	100	m-Cresol
D025	100	p-Cresol
D026	100	Cresol
D027	100	1,4-Dichlorobenzene
D028	100	1,2-Dichloroethane
D029	100	1,1-Dichloroethylene
D030	10	2,4-Dinitrotoluene
D031	1	Heptachlor (and epoxide)
D032	10	Hexachlorobenzene
D033	1	Hexachlorobutadiene
D034	100	Hexachloroethane
D035	5,000	Methyl ethyl ketone
D036	1,000	Nitrobenzene
D037	10	Pentachlorophenol
D038	1,000	Pyridine
D039	100	Tetrachloroethylene
D040	100	Trichloroethylene
D041	10	2,4,5-Trichlorophenol
D042	10	2,4,6-Trichlorophenol
D043	1	Vinyl chloride

* The Agency may adjust the statutory RQ for this RCRA hazardous substance (K181 waste) in a future rulemaking; until then the statutory one-pound RQ applies.

f See 40 CFR 302.6(b)(1) for application of the mixture rule to this hazardous waste.

Appendix D: EPCRA Section 313, TRI Chemical Categories[Top](#)

Appendix D: EPCRA section 313 Toxic Release Inventory (TRI) Chemical Categories

The EPCRA Section 313, Toxic Release Inventory (TRI) has 33 chemical categories (including four categories containing 83 specifically-listed chemicals). Each chemical category is listed below with its category code and category name.

Source: <https://www.epa.gov/toxics-release-inventory-tri-program/tri-listed-chemicals>

Also see 40 CFR 372.65.

N010 Antimony Compounds. *Includes any unique chemical substance that contains antimony as part of that chemical's infrastructure.*

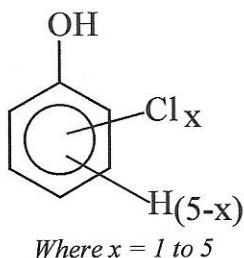
N020 Arsenic Compounds. *Includes any unique chemical substance that contains arsenic as part of that chemical's infrastructure.*

N040 Barium Compounds. *Includes any unique chemical substance that contains barium as part of that chemical's infrastructure. This category does not include: Barium sulfate CAS Number 7727-43-7*

N050 Beryllium Compounds. *Includes any unique chemical substance that contains beryllium as part of that chemical's infrastructure.*

N078 Cadmium Compounds. *Includes any unique chemical substance that contains cadmium as part of that chemical's infrastructure.*

N084 Chlorophenols. *Includes any chemical substance with the following chemical formula:*

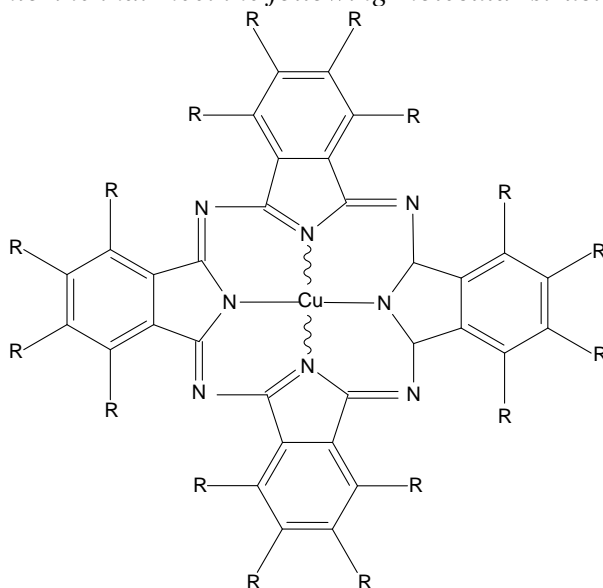


Appendix D: EPCRA Section 313, TRI Chemical Categories

N090 Chromium Compounds. *Includes any unique chemical substance that contains chromium as part of that chemical's infrastructure (except for chromite ore mined in the Transvaal Region of South Africa and the unreacted ore component of the chromite ore processing residue (COPR). COPR is the solid waste remaining after aqueous extraction of oxidized chromite ore that has been combined with soda ash and kiln roasted at approximately 2,000 deg.F.)*

N096 Cobalt Compounds. *Includes any unique chemical substance that contains cobalt as part of that chemical's infrastructure.*

N100 Copper Compounds. *Includes any unique chemical substance that contains copper as part of that chemical's infrastructure (except for C.I. Pigment Blue 15 (PB-15, CAS No. 147-14-8), C.I. Pigment Green 7 (PG-7, CAS No. 1329-53-6), and C.I. Pigment Green 36 (PG-36, CAS No. 14302-13-7), except copper phthalocyanine compounds that are substituted with only hydrogen, and/or bromine, and/or chlorine that meet the following molecular structure definition).*



where R = H and/or Br and/or Cl only.

N106 Cyanide Compounds. *Includes any chemical substance with the following chemical formula:*

$X^+ CN^-$ where X^+ = any group (except H^+) where a formal dissociation can be made. For example KCN or $Ca(CN)_2$.

N120 Diisocyanates *This category includes only those chemicals listed below.*

Appendix D: EPCRA Section 313, TRI Chemical Categories

CAS Number	Diisocyanate Chemical Name
38661-72-2	1,3-Bis(methylisocyanate)-cyclohexane
10347-54-3	1,4-Bis(methylisocyanate)-cyclohexane
2556-36-7	1,4-Cyclohexanediiisocyanate
134190-37-7	Diethyldiisocyanatobenzene
4128-73-8	4,4'-Diisocyanatodiphenyl ether
75790-87-3	2,4'-Diisocyanatodiphenyl sulfide
91-93-0	3,3'-Dimethoxybenzidine-4,4'-diisocyanate
91-97-4	3,3'-Dimethyl-4,4'-diphenylene diisocyanate
139-25-3	3,3'-Dimethyldiphenyl methane-4,4'-diisocyanate
822-06-0	Hexamethylene-1,6-diisocyanate
4098-71-9	Isophorone diisocyanate
75790-84-0	4-Methyldiphenylmethane-3,4-diisocyanate
5124-30-1	1,1-Methylenebis(4-isocyanatocyclohexane)
101-68-8	4,4'-Methylenedi(phenylisocyanate)
3173-72-6	1,5-Naphthalene diisocyanate
123-61-5	1,3-Phenylene diisocyanate
104-49-4	1,4-Phenylene diisocyanate
9016-87-9	Polymeric diphenylmethane diisocyanate
16938-22-0	2,2,4-Trimethylhexamethylenediisocyanate
15646-96-5	2,4,4-Trimethylhexamethylene diisocyanate

N150 Dioxin and Dioxin-Like Compounds

(Manufacturing; and the processing or otherwise use of dioxin and dioxin-like compounds if the dioxin and dioxin-like compounds are present as contaminants in a chemical and if they were created during the manufacturing of that chemical.) This category includes only those chemicals listed below.

CAS Number	Dioxin Chemical Name
1746-01-6	2,3,7,8- Tetrachlorodibenzo- <i>p</i> -dioxin
40321-76-4	1,2,3,7,8-Pentachlorodibenzo- <i>p</i> -dioxin
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo- <i>p</i> -dioxin
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo- <i>p</i> -dioxin
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo- <i>p</i> -dioxin
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo- <i>p</i> -dioxin
3268-87-9	1,2,3,4,6,7,8,9-Octachlorodibenzo- <i>p</i> -dioxin
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran

Appendix D: EPCRA Section 313, TRI Chemical Categories

CAS Number	Dioxin Chemical Name
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran
70648-26-9	1,2,3,4,7,8-Hexachlorod-benzofuran
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran
39001-02-0	1,2,3,4,6,7,8,9-Octachlorodibenzofuran

N171 Ethylenebisdithiocarbamic acid, salts and esters (EBDCs). *Includes any unique chemical substance that contains an EBDC or an EBDC salt as part of that chemical's infrastructure.*

N230 Certain Glycol Ethers. *Includes any chemical substance with the following chemical formula:*



where n = 1, 2, or 3

R = alkyl C7 or less; or

R = phenyl or alkyl substituted phenyl;

R' = H, or alkyl C7 or less; or

OR' = consisting of carboxylic acid ester, sulfate, phosphate, nitrate, or sulfonate.

N270 Hexabromocyclododecane (This category includes only those chemicals covered by the CAS numbers listed here). Chemical Category Added for Reporting Year 2017.

CAS Number	Hexabromocyclododecane Name
3194-55-6	1,2,5,6,9,10-Hexabromocyclododecane
25637-99-4	Hexabromocyclododecane

N420 Lead Compounds. *Includes any unique chemical substance that contains lead as part of that chemical's infrastructure.*

N450 Manganese Compounds. *Includes any unique chemical substance that contains manganese as part of that chemical's infrastructure.*

N458 Mercury Compounds. *Includes any unique chemical substance that contains mercury as part of that chemical's infrastructure.*

N495 Nickel Compounds. *Includes any unique chemical substance that contains nickel as part of that chemical's infrastructure.*

Appendix D: EPCRA Section 313, TRI Chemical Categories

N503 Nicotine and salts. *Includes any unique chemical substance that contains nicotine or a nicotine salt as part of that chemical's infrastructure.*

N511 Nitrate compounds (water dissociable; reportable only when in aqueous solution)

N530 Nonylphenol. *This category includes only those chemicals listed below.*

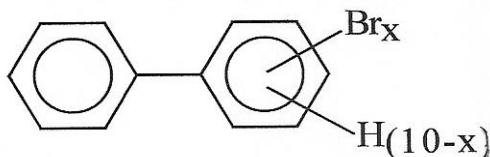
CAS Number	Nonylphenol Name
104-40-5	4-Nonylphenol
11066-49-2	Isononylphenol
25154-52-3	Nonylphenol
26543-97-5	4-Isononylphenol
84852-15-3	4-Nonylphenol, branched
90481-04-2	Nonylphenol, branched

N535 Nonylphenol ethoxylates (NPEs) (Chemicals Added for Reporting Year 2019)

CAS Number	Nonyphenol Ethoxylate Name
7311-27-5	Ethanol, 2-[2-[2-(4-nonylphenoxy)ethoxy]ethoxy]ethoxy]-
9016-45-9	Poly(oxy-1,2-ethanediyl), α -(nonylphenyl)- ω -hydroxy-
20427-84-3	Ethanol, 2-[2-(4-nonylphenoxy)ethoxy]-
26027-38-3	Poly(oxy-1,2-ethanediyl), α -(4-nonylphenyl)- ω -hydroxy-
26571-11-9	3,6,9,12,15,18,21,24-Octaoxahexacosan-1-ol, 26-(nonylphenoxy)-
27176-93-8	Ethanol, 2-[2-(nonylphenoxy)ethoxy]-
27177-05-5	3,6,9,12,15,18,21-Heptaoxatricosan-1-ol, 23-(nonylphenoxy)-
27177-08-8	3,6,9,12,15,18,21,24,27-Nonaoxanonacosan-1-ol, 29-(nonylphenoxy)-
27986-36-3	Ethanol, 2-(nonylphenoxy)-
37205-87-1	Poly(oxy-1,2-ethanediyl), α -(isononylphenyl)- ω -hydroxy-
51938-25-1	Poly(oxy-1,2-ethanediyl), α -(2-nonylphenyl)- ω -hydroxy-
68412-54-4	Poly(oxy-1,2-ethanediyl), α -(nonylphenyl)- ω -hydroxy-, branched
127087-87-0	Poly(oxy-1,2-ethanediyl), α -(4-nonylphenyl)- ω -hydroxy-, branched

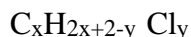
Appendix D: EPCRA Section 313, TRI Chemical Categories

N575 Polybrominated Biphenyls (PBBs). *Includes any chemical substance with the following chemical formula:*



Where $x = 1$ to 10

N583 Polychlorinated alkanes (C10 to C13) (except for those members of the category that have an average chain length of 12 carbons and contain an average chlorine content of 60% by weight which are subject to the 0.1% *de minimis*). *Includes any chemical substance with the following chemical formula:*



where $x = 10$ to 13 ;

$y = 3$ to 12 ; and

the average chlorine content ranges from 40-70% with the limiting molecular formulas



N590 Polycyclic aromatic compounds (PACs). *This category includes the chemicals listed below.*

CAS Number	PAC Chemical Name
56-55-3	Benz[a]anthracene
205-99-2	Benzo[b]fluoranthene
205-82-3	Benzo[j]fluoranthene
207-08-9	Benzo[k]fluoranthene
206-44-0	Benzo[j,k]fluorene
189-55-9	Benzo[r,s,t]pentaphene
218-01-9	Benzo[a]phenanthrene
50-32-8	Benzo[a]pyrene
226-36-8	Dibenz[a,h]acridine
224-42-0	Dibenz[a,j]acridine
53-70-3	Dibenzo[a,h]anthracene
194-59-2	7H-Dibenzo[c,g]carbazole
5385-75-1	Dibenzo[a,e]fluoranthene
192-65-4	Dibenzo[a,e]pyrene
189-64-0	Dibenzo[a,h]pyrene

Appendix D: EPCRA Section 313, TRI Chemical Categories

CAS Number	PAC Chemical Name
191-30-0	Dibenzo[a,l]pyrene
57-97-6	7,12-Dimethylbenz[a]-anthracene
42397-64-8	1,6-Dinitropyrene
42397-65-9	1,8-Dinitropyrene
193-39-5	Indeno[1,2,3-cd]pyrene
56-49-5	3-Methylcholanthrene
3697-24-3	5-Methylchrysene
7496-02-8	6-Nitrochrysene
5522-43-0	1-Nitropyrene
57835-92-4	4-Nitropyrene

N725 Selenium Compounds. *Includes any unique chemical substance that contains selenium as part of that chemical's infrastructure.*

N740 Silver Compounds. *Includes any unique chemical substance that contains silver as part of that chemical's infrastructure.*

N746 Strychnine and salts. *Includes any unique chemical substance that contains strychnine or a strychnine salt as part of that chemical's infrastructure.*

N760 Thallium Compounds. *Includes any unique chemical substance that contains thallium as part of that chemical's infrastructure.*

N770 Vanadium Compounds. *Includes any unique chemical substance that contains vanadium as part of that chemical's infrastructure.*

N874 Warfarin and salts. *Includes any unique chemical substance that contains warfarin or a warfarin salt as part of that chemical's infrastructure.*

N982 Zinc Compounds. *Includes any unique chemical substance that contains zinc as part of that chemical's infrastructure.*

For more details on how to report TRI chemicals and chemical categories, see <https://www.epa.gov/toxics-release-inventory-tri-program/reporting-tri-facilities>

This above webpage also has links to chemical-specific guidance documents for the EPCRA Section 313 chemical categories. Documents are available for:

- Aqueous Ammonia
- Certain Glycol Ethers Category
- Chlorophenols category
- Compounds and Mixtures
- Dioxin and Dioxin-like Compounds Category

Appendix D: EPCRA Section 313, TRI Chemical Categories

- EBDC Acid, Salts and Esters Category and Mixtures Containing Maneb, Metiram, Nabam, and Zineb
- Hydrochloric Acid Aerosols
- Lead and Lead Compounds Category
- Mercury and Mercury Compounds Category
- Nicotine and salts
- Nitrate compounds
- Pesticides and Other Persistent Bioaccumulative Toxic Chemicals
- Polychlorinated Alkanes Category
- Polychlorinated Biphenyls (PCBs)
- Polycyclic Aromatic Compounds
- Strychnine and Salts
- Sulfuric Acid Aerosols
- Toxic Chemical Categories
- Warfarin and Salts

Appendix E: EPCRA Section 313 TRI, Per- and Polyfluoroalkyl Substances by CAS Number[Top](#)

**Appendix E: EPCRA section 313 Toxic Release Inventory
(TRI) Per- And Polyfluoroalkyl Substances
(By CAS Number)**

CAS No.	Chemical Name
307-35-7	Perfluorooctylsulfonfyl fluoride
307-55-1	Perfluorododecanoic acid
335-66-0	Octanoyl fluoride, pentadecafluoro-
335-67-1	Perfluorooctanoic acid
335-71-7	1-Heptanesulfonyl fluoride, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-
335-76-2	Perfluorodecanoic acid
335-93-3	Silver(I) perfluorooctanoate
335-95-5	Sodium perfluorooctanoate
355-46-4	Perfluorohexanesulfonic acid
375-73-5	Perfluorobutane sulfonic acid
375-95-1	Perfluorononanoic acid
376-06-7	Perfluorotetradecanoic acid
376-14-7	2-[Ethyl[(heptadecafluorooctyl)sulfonyl]amino]ethyl methacrylate
376-27-2	Methyl perfluorooctanoate
383-07-3	2-[Butyl[(heptadecafluorooctyl)sulfonyl]amino]ethyl acrylate
423-82-5	2-[Ethyl[(heptadecafluorooctyl)sulfonyl]amino]ethyl acrylate
507-63-1	Perfluorooctyl iodide
678-39-7	1-Decanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-
865-86-1	1-Dodecanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuoro-
1652-63-7	3-[[[(Heptadecafluorooctyl)sulfonyl]amino]-N,N,N-trimethyl-1-propanaminium iodide
1691-99-2	N-Ethyl-N-(2-hydroxyethyl)perfluorooctanesulfonamide
1763-23-1	Perfluorooctane sulfonic acid
1996-88-9	2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl ester
2043-53-0	Decane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-10-iodo-
2043-54-1	Dodecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10-heneicosafuoro-12-iodo-
2144-54-9	2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuorododecyl ester
2263-09-4	1-Octanesulfonamide, N-butyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-(2-hydroxyethyl)-
2395-00-8	Potassium perfluorooctanoate
2795-39-3	Potassium perfluorooctanesulfonate
2991-51-7	Glycine, N-ethyl-N-[(heptadecafluorooctyl)sulfonyl]-, potassium salt
3107-18-4	Cyclohexanesulfonic acid, undecafluoro-, potassium salt
3825-26-1	Ammonium perfluorooctanoate
3871-99-6	1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, potassium salt

Appendix E: EPCRA Section 313 TRI, Per- and Polyfluoroalkyl Substances by CAS Number

CAS No.	Chemical Name
3872-25-1	1-Pentanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,5-undecafluoro-, potassium salt
4151-50-2	Sulfluramid
4980-53-4	2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,16-nonacosafuorohexadecyl ester
6014-75-1	2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafuorotetradecyl ester
13252-13-6	Hexafluoropropylene oxide dimer acid
16517-11-6	Octadecanoic acid, pentatriacontafuoro-
17202-41-4	1-Nonanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,9-nonadecafluoro-, ammonium salt
17741-60-5	1,1,2,2-Tetrahydroperfluorododecyl acrylate
21652-58-4	Perfluorooctyl Ethylene
24448-09-7	1-Octanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-(2-hydroxyethyl)-N-methyl-
25268-77-3	2-[(Heptadecafluorooctyl)sulfonyl]methylamino]ethyl acrylate
27619-90-5	1-Decanesulfonyl chloride, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-
27619-91-6	1-Dodecanesulfonyl chloride, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuoro-
27905-45-9	1,1,2,2-Tetrahydroperfluorodecyl acrylate
29081-56-9	1-Octanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-, ammonium salt
29117-08-6	Poly(oxy-1,2-ethanediyl), α-[2-[ethyl[(heptadecafluorooctyl)sulfonyl]amino]ethyl]-ω-hydroxy-
29420-49-3	Potassium perfluorobutane sulfonate
29457-72-5	Lithium (perfluorooctane)sulfonate
30046-31-2	Tetradecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12-pentacosafuoro-14-iodo-
31506-32-8	1-Octanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-methyl-
34362-49-7	1,1,2,2-Tetrahydroperfluorohexadecyl acrylate
34395-24-9	1,1,2,2-Tetrahydroperfluorotetradecyl acrylate
37338-48-0	Poly[oxy(methyl-1,2-ethanediyl)], α-[2-[ethyl[(heptadecafluorooctyl)sulfonyl]amino]ethyl]-ω-hydroxy-
38006-74-5	1-Propanaminium, 3-[(heptadecafluorooctyl)sulfonyl]amino]-N,N,N-trimethyl-, chloride
39239-77-5	1-Tetradecanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafuoro-
45187-15-3	Perfluorobutanesulfonate
52166-82-2	1-Propanaminium, N,N,N-trimethyl-3-[(tridecafluorohexyl)sulfonyl]amino]-, chloride
55910-10-6	Glycine, N-[(heptadecafluorooctyl)sulfonyl]-N-propyl-, potassium salt
56372-23-7	Poly(oxy-1,2-ethanediyl), α-[2-[ethyl[(tridecafluorohexyl)sulfonyl]amino]ethyl]-ω-hydroxy-
56773-42-3	Ethanaminium, N,N,N-triethyl-, salt with 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-1-octanesulfonic acid (1:1)
59071-10-2	2-Propenoic acid, 2-[ethyl[(pentadecafluoroheptyl)sulfonyl]amino]ethyl ester
60270-55-5	1-Heptanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-, potassium salt
60699-51-6	1-Hexadecanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,16-nonacosafuoro-

Appendix E: EPCRA Section 313 TRI, Per- and Polyfluoroalkyl Substances by CAS Number

CAS No.	Chemical Name
61660-12-6	1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluoro-N-[3-(trimethoxysilyl)propyl]-
61798-68-3	Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)-, salt with 4-methylbenzenesulfonic acid (1:1)
62037-80-3	Hexafluoropropylene oxide dimer acid ammonium salt
65104-45-2	2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuorododecyl ester, polymer with 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafuorotetradecyl 2-methyl-2-propenoate and 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl 2-methyl-2-propenoate
65104-65-6	1-Eicosanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18,19,19,20,20-heptatriacontafuoro-
65104-67-8	1-Octadecanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18,18-tritriacontafuoro-
65510-55-6	Hexadecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14-nonacosafuoro-16-iodo-
65530-59-8	Poly(difluoromethylene), α-fluoro-ω-(2-hydroxyethyl)-, 2-hydroxy-1,2,3-propanetricarboxylate (3:1)
65530-61-2	Poly(difluoromethylene), α-fluoro-ω-[2-(phosphonooxy)ethyl]-
65530-62-3	Poly(difluoromethylene), α,α'-[phosphinicobis(oxy-2,1-ethanediyl)]bis[ω-fluoro-
65530-63-4	Ethanol, 2,2'-iminobis-, compd. with α-fluoro-ω-[2-(phosphonooxy)ethyl]poly(difluoromethylene) (2:1)
65530-64-5	Ethanol, 2,2'-iminobis-, compd. with α,α'-[phosphinicobis(oxy-2,1-ethanediyl)]bis[ω-fluoropoly(difluoromethylene)] (1:1)
65530-65-6	Poly(difluoromethylene), α-fluoro-ω-[2-[(1-oxooctadecyl)oxy]ethyl]-
65530-66-7	Poly(difluoromethylene), α-fluoro-ω-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-
65530-69-0	Poly(difluoromethylene), α-[2-[(2-carboxyethyl)thio]ethyl]-ω-fluoro-, lithium salt
65530-70-3	Poly(difluoromethylene), α,α'-[phosphinicobis(oxy-2,1-ethanediyl)]bis[ω-fluoro-, ammonium salt
65530-71-4	Poly(difluoromethylene), α-fluoro-ω-[2-(phosphonooxy)ethyl]-, monoammonium salt
65530-72-5	Poly(difluoromethylene), α-fluoro-ω-[2-(phosphonooxy)ethyl]-, diammonium salt
65530-74-7	Ethanol, 2,2'-iminobis-, compd. with α-fluoro-ω-[2-(phosphonooxy)ethyl]poly(difluoromethylene) (1:1)
65530-83-8	Poly(difluoromethylene), α-[2-[(2-carboxyethyl)thio]ethyl]-ω-fluoro-
65545-80-4	Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy-, ether with α-fluoro-ω-(2-hydroxyethyl)poly(difluoromethylene) (1:1)
65605-56-3	Poly(difluoromethylene), α-fluoro-ω-(2-hydroxyethyl)-, dihydrogen 2-hydroxy-1,2,3-propanetricarboxylate
65605-57-4	Poly(difluoromethylene), α-fluoro-ω-(2-hydroxyethyl)-, hydrogen 2-hydroxy-1,2,3-propanetricarboxylate
65605-58-5	2-Propenoic acid, esters, 2-methyl-, dodecyl ester, polymer with α-fluoro-ω-[2-[(2-methyl-1-oxo-2-propen-1-yl)oxy]ethyl]poly(difluoromethylene)
65605-59-6	2-Propenoic acid, 2-methyl-, dodecyl ester, polymer with α-fluoro-ω-[2-[(2-methyl-1-oxo-2-propen-1-yl)oxy]ethyl]poly(difluoromethylene) and N-(hydroxymethyl)-2-propenamide
65605-73-4	Poly(difluoromethylene), α-fluoro-ω-[2-[(1-oxo-2-propenyl)oxy]ethyl]-, homopolymer

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CAS No.	Chemical Name
65636-35-3	Ethanaminium, N,N-diethyl-N-methyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, methyl sulfate, polymer with 2-ethylhexyl 2-methyl-2-propenoate, α -fluoro- ω -[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]poly(difluoromethylene), 2-hydroxyethyl 2-methyl-2-propenoate and N-(hydroxymethyl)-2-propenamide
67584-42-3	Cyclohexanesulfonic acid, decafluoro(pentafluoroethyl)-, potassium salt
67584-52-5	Glycine, N-ethyl-N-[(undecafluoropentyl)sulfonyl]-, potassium salt
67584-53-6	Glycine, N-ethyl-N-[(tridecafluorohexyl)sulfonyl]-, potassium salt
67584-56-9	2-Propenoic acid, 2-[methyl[(undecafluoropentyl)sulfonyl]amino]ethyl ester
67584-57-0	2-Propenoic acid, 2-[methyl[(tridecafluorohexyl)sulfonyl]amino]ethyl ester
67584-58-1	1-Propanaminium, N,N,N-trimethyl-3-[[pentadecafluoroheptyl)sulfonyl]amino]-, iodide
67584-62-7	Glycine, N-ethyl-N-[(pentadecafluoroheptyl)sulfonyl]-, potassium salt
67905-19-5	Perfluoropalmitic acid
67906-42-7	1-Decanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heneicosafuoro-, ammonium salt
67969-69-1	1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-[2-(phosphonooxy)ethyl]-, diammonium salt
68084-62-8	2-Propenoic acid, 2-[methyl[(pentadecafluoroheptyl)sulfonyl]amino]ethyl ester
68140-18-1	Thiols, C4-10, γ - ω -perfluoro
68140-20-5	Thiols, C6-12, γ - ω -perfluoro
68140-21-6	Thiols, C10-20, γ - ω -perfluoro
68141-02-6	Chromium(III) perfluorooctanoate
68156-01-4	Cyclohexanesulfonic acid, nonafluorobis(trifluoromethyl)-, potassium salt
68156-07-0	Cyclohexanesulfonic acid, decafluoro(trifluoromethyl)-, potassium salt
68187-25-7	Butanoic acid, 4-[[3-(dimethylamino)propyl]amino]-4-oxo-, 2(or 3)-[(γ - ω -perfluoro-C6-20-alkyl)thio] derivs.
68187-47-3	1-Propanesulfonic acid, 2-methyl-, 2-[[1-oxo-3-[(γ - ω -perfluoro-C4-16-alkyl)thio]propyl]amino] derivs., sodium salts
68188-12-5	Alkyl iodides, C4-20, γ - ω -perfluoro
68227-96-3	2-Propenoic acid, butyl ester, telomer with 2-[[[heptadecafluorooctyl)sulfonyl]methylamino]ethyl 2-propenoate, 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl 2-propenoate, α -(2-methyl-1-oxo-2-propenyl)- ω -hydroxypoly(oxy-1,4-butanediyl), α -(2-methyl-1-oxo-2-propenyl)- ω -[(2-methyl-1-oxo-2-propenyl)oxy]poly(oxy-1,4-butanediyl), 2-[methyl[(pentadecafluoroheptyl)sulfonyl]amino]ethyl 2-propenoate, 2-[methyl[(tridecafluorohexyl)sulfonyl]amino]ethyl 2-propenoate, 2-[methyl[(undecafluoropentyl)sulfonyl]amino]ethyl 2-propenoate and 1-octanethiol
68239-43-0	2-Propenoic acid, 2-methyl-, 2-ethylhexyl ester, polymer with α -fluoro- ω -[2-[(2-methyl-1-oxo-2-propen-1-yl)oxy]ethyl]poly(difluoromethylene), 2-hydroxyethyl 2-methyl-2-propenoate and N-(hydroxymethyl)-2-propenamide
68259-07-4	1-Heptanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-, ammonium salt
68259-08-5	1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, ammonium salt
68259-09-6	1-Pentanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,5-undecafluoro-, ammonium salt
68259-38-1	Poly[oxy(methyl-1,2-ethanediyl)], α -[2-[ethyl[(tridecafluorohexyl)sulfonyl]amino]ethyl]- ω -hydroxy-

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CAS No.	Chemical Name
68259-39-2	Poly[oxy(methyl-1,2-ethanediyl)], α -[2-[ethyl[(pentadecafluoroheptyl)sulfonyl]amino]ethyl]- ω -hydroxy-
68298-62-4	2-Propenoic acid, 2-[butyl[(heptadecafluorooctyl)sulfonyl]amino]ethyl ester, telomer with 2-[butyl[(pentadecafluoroheptyl)sulfonyl]amino]ethyl 2-propenoate, methyloxirane polymer with oxirane di-2-propenoate, methyloxirane polymer with oxirane mono-2-propenoate and 1-octanethiol
68298-80-6	Poly(oxy-1,2-ethanediyl), α -[2-[ethyl[(undecafluoropentyl)sulfonyl]amino]ethyl]- ω -hydroxy-
68298-81-7	Poly(oxy-1,2-ethanediyl), α -[2-[ethyl[(pentadecafluoroheptyl)sulfonyl]amino]ethyl]- ω -hydroxy-
68310-17-8	Poly[oxy(methyl-1,2-ethanediyl)], α -[2-[ethyl[(undecafluoropentyl)sulfonyl]amino]ethyl]- ω -hydroxy-
68391-08-2	Alcohols, C8-14, γ - ω -perfluoro
68412-68-0	Phosphonic acid, perfluoro-C6-12-alkyl derivs.
68412-69-1	Phosphinic acid, bis(perfluoro-C6-12-alkyl) derivs.
68515-62-8	1,4-Benzenedicarboxylic acid, dimethyl ester, reaction products with bis(2-hydroxyethyl)terephthalate, ethylene glycol, α -fluoro- ω -(2-hydroxyethyl)poly(difluoromethylene), hexakis(methoxymethyl)melamine and polyethylene glycol
68555-74-8	1-Pentanesulfonamide, 1,1,2,2,3,3,4,4,5,5,5-undecafluoro-N-(2-hydroxyethyl)-N-methyl-
68555-75-9	1-Hexanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-N-(2-hydroxyethyl)-N-methyl-
68555-76-0	1-Heptanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-N-(2-hydroxyethyl)-N-methyl-
68555-81-7	1-Propanaminium, N,N,N-trimethyl-3-[[pentadecafluoroheptyl)sulfonyl]amino]-, chloride
68555-91-9	2-Propenoic acid, 2-methyl-, 2-[ethyl[(heptadecafluorooctyl)sulfonyl]amino]ethyl ester, polymer with 2-[ethyl[(nonafluorobutyl)sulfonyl]amino]ethyl 2-methyl-2-propenoate, 2-[ethyl[(pentadecafluoroheptyl)sulfonyl]amino]ethyl 2-methyl-2-propenoate, 2-[ethyl[(tridecafluorohexyl)sulfonyl]amino]ethyl 2-methyl-2-propenoate, 2-[ethyl[(undecafluoropentyl)sulfonyl]amino]ethyl 2-methyl-2-propenoate and octadecyl 2-methyl-2-propenoate
68758-57-6	1-Tetradecanesulfonyl chloride, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafuoro-
68867-60-7	2-Propenoic acid, 2-[[heptadecafluorooctyl)sulfonyl]methylamino]ethyl ester, polymer with 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl 2-propenoate, 2-[methyl[(pentadecafluoroheptyl)sulfonyl]amino]ethyl 2-propenoate, 2-[methyl[(tridecafluorohexyl)sulfonyl]amino]ethyl 2-propenoate, 2-[methyl[(undecafluoropentyl)sulfonyl]amino]ethyl 2-propenoate and α -(1-oxo-2-propenyl)- ω -methoxypoly(oxy-1,2-ethanediyl)
68957-55-1	1-Propanaminium, N,N,N-trimethyl-3-[[undecafluoropentyl)sulfonyl]amino]-, chloride
68957-57-3	1-Propanaminium, N,N,N-trimethyl-3-[[undecafluoropentyl)sulfonyl]amino]-, iodide
68957-58-4	1-Propanaminium, N,N,N-trimethyl-3-[[tridecafluorohexyl)sulfonyl]amino]-, iodide
68957-62-0	1-Heptanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-
68958-60-1	Poly(oxy-1,2-ethanediyl), α -[2-[ethyl[(pentadecafluoroheptyl)sulfonyl]amino]ethyl]- ω -methoxy-
68958-61-2	Poly(oxy-1,2-ethanediyl), α -[2-[ethyl[(heptadecafluorooctyl)sulfonyl]amino]ethyl]- ω -methoxy-
70225-14-8	1-Octanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-, compd. with 2,2'-iminobis[ethanol] (1:1)

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CAS No.	Chemical Name
70225-15-9	1-Heptanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-, compd. with 2,2'-iminobis[ethanol] (1:1)
70225-16-0	1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, compd. with 2,2'-iminobis[ethanol] (1:1)
70225-17-1	1-Pentanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,5-undecafluoro-, compd. with 2,2'-iminobis[ethanol] (1:1)
70969-47-0	Thiols, C8-20, γ-ω-perfluoro, telomers with acrylamide
70983-59-4	Poly(oxy-1,2-ethanediyl), α-methyl-ω-hydroxy-, 2-hydroxy-3-[(γ-ω-perfluoro-C6-20-alkyl)thio]propyl ethers
70983-60-7	1-Propanaminium, 2-hydroxy-N,N,N-trimethyl-, 3-[(γ-ω-perfluoro-C6-20-alkyl)thio] derivs., chlorides
71608-60-1	Pentanoic acid, 4,4-bis[(γ-ω-perfluoro-C8-20-alkyl)thio] derivs.
72623-77-9	Fatty acids, C6-18, perfluoro, ammonium salts
72968-38-8	Fatty acids, C7-13, perfluoro, ammonium salts
74499-44-8	Phosphoric acid, γ-ω-perfluoro-C8-16-alkyl esters, compds. with diethanolamine
78560-44-8	Silane, trichloro(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)-
80010-37-3	Poly(difluoromethylene), α-fluoro-ω-[2-sulphoethyl]-
83048-65-1	Silane, (3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)trimethoxy-
95144-12-0	Poly(difluoromethylene), α-fluoro-ω-[2-(phosphonooxy)ethyl]-, ammonium salt
97553-95-2	Thiocyanic acid, γ-ω-perfluoro-C4-20-alkyl esters
97659-47-7	Alkenes, C8-14 α-, δ-ω-perfluoro
118400-71-8	Disulfides, bis(γ-ω-perfluoro-C6-20-alkyl)
123171-68-6	Poly(difluoromethylene), α-[2-(acetyloxy)-3-[(carboxymethyl)dimethylammonio]propyl]-ω-fluoro-, inner salt
125476-71-3	Silicic acid (H ₄ SiO ₄), disodium salt, reaction products with chlorotrimethylsilane and 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-1-decanol
135228-60-3	Hexane, 1,6-diisocyanato-, homopolymer, γ-ω-perfluoro-C6-20-alc.-blocked
142636-88-2	2-Propenoic acid, 2-methyl-, octadecyl ester, polymer with 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuorododecyl 2-propenoate, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl 2-propenoate and 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafuorotetradecyl 2-propenoate
143372-54-7	Siloxanes and Silicones, (3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)oxy Me, hydroxy Me, Me octyl, ethers with polyethylene glycol mono-Me ether
148240-85-1	1,3-Propanediol, 2,2-bis[[(γ-ω-perfluoro-C4-10-alkyl)thio]methyl] derivs., phosphates, ammonium salts
148240-87-3	1,3-Propanediol, 2,2-bis[[(γ-ω-perfluoro-C6-12-alkyl)thio]methyl] derivs., phosphates, ammonium salts
148240-89-5	1,3-Propanediol, 2,2-bis[[(γ-ω-perfluoro-C10-20-alkyl)thio]methyl] derivs., phosphates, ammonium salts
150135-57-2	2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymers with Bu acrylate, γ-ω-perfluoro-C8-14-alkyl acrylate and polyethylene glycol monomethacrylate, 2,2'-azobis[2,4-dimethylpentanenitrile]-initiated
178094-69-4	1-Octanesulfonamide, N-[3-(dimethyloxidoamino)propyl]-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-, potassium salt

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CAS No.	Chemical Name
178535-23-4	Fatty acids, linseed-oil, γ - ω -perfluoro-C8-14-alkyl esters
180582-79-0	Sulfonic acids, C6-12-alkane, γ - ω -perfluoro, ammonium salts
182176-52-9	Ethaneperoxoic acid, reaction products with 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl thiocyanate and 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl thiocyanate
196316-34-4	2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymers with γ - ω -perfluoro-C10-16-alkyl acrylate and vinyl acetate, acetates
200513-42-4	2-Propenoic acid, 2-methyl-, polymer with butyl 2-methyl-2-propenoate, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl 2-propenoate, 2-hydroxyethyl 2-methyl-2-propenoate and methyl 2-methyl-2-propenoate
203743-03-7	2-Propenoic acid, 2-methyl-, hexadecyl ester, polymers with 2-hydroxyethyl methacrylate, γ - ω -perfluoro-C10-6-alkyl acrylate and stearyl methacrylate
238420-68-3	Propanedioic acid, mono(γ - ω -perfluoro-C8-12-alkyl) derivs., di-me esters
238420-80-9	Propanedioic acid, mono(γ - ω -perfluoro-C8-12-alkyl) derivs., bis[4-(ethenyloxy)butyl] esters
1078142-10-5	1,3-Propanediol, 2,2-bis[[(γ - ω -perfluoro-C6-12-alkyl)thio]methyl] derivs., polymers with 2,2-bis[[(γ - ω -perfluoro-C10-20-alkyl)thio]methyl]-1,3-propanediol, 1,6-diisocyanato-2,2,4(or 2,4,4)-trimethylhexane, 2-heptyl-3,4-bis(9-isocyanatononyl)-1-pentylcyclohexane and 2,2'-(methylimino)bis[ethanol]
1078712-88-5	Thiols, C4-20, γ - ω -perfluoro, telomers with acrylamide and acrylic acid, sodium salts
1078715-61-3	1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-[2-[(γ - ω -perfluoro-C4-20-alkyl)thio]acetyl] derivs., inner salts

Appendix F: EPCRA Section 313 TRI, Per- and Polyfluoroalkyl Substances by Alphabetical Name[Top](#)

**Appendix F: EPCRA section 313 Toxic Release Inventory
(TRI) Per- and Polyfluoroalkyl Substances
(By Alphabetical Name)**

Chemical Name	CAS No.
Alcohols, C8-14, γ - ω -perfluoro	68391-08-2
Alkenes, C8-14 α -, δ - ω -perfluoro	97659-47-7
Alkyl iodides, C4-20, γ - ω -perfluoro	68188-12-5
Ammonium perfluorooctanoate	3825-26-1
1,4-Benzenedicarboxylic acid, dimethyl ester, reaction products with bis(2-hydroxyethyl)terephthalate, ethylene glycol, α -fluoro- ω -(2-hydroxyethyl)poly(difluoromethylene), hexakis(methoxymethyl)melamine and polyethylene glycol	68515-62-8
Butanoic acid, 4-[[3-(dimethylamino)propyl]amino]-4-oxo-, 2(or 3)-[(γ - ω -perfluoro-C6-20-alkyl)thio] derivs.	68187-25-7
2-[Butyl[(heptadecafluorooctyl)sulfonyl]amino]ethyl acrylate	383-07-3
Chromium(III) perfluorooctanoate	68141-02-6
Cyclohexanesulfonic acid, decafluoro(pentafluoroethyl)-, potassium salt	67584-42-3
Cyclohexanesulfonic acid, decafluoro(trifluoromethyl)-, potassium salt	68156-07-0
Cyclohexanesulfonic acid, nonafluorobis(trifluoromethyl)-, potassium salt	68156-01-4
Cyclohexanesulfonic acid, undecafluoro-, potassium salt	3107-18-4
Decane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-10-iodo-	2043-53-0
1-Decanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heneicosafluoro-, ammonium salt	67906-42-7
1-Decanesulfonyl chloride, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-	27619-90-5
1-Decanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-	678-39-7
Disulfides, bis(γ - ω -perfluoro-C6-20-alkyl)	118400-71-8
Dodecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10-heneicosafluoro-12-iodo-	2043-54-1
1-Dodecanesulfonyl chloride, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluoro-	27619-91-6
1-Dodecanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafluoro-	865-86-1
1-Eicosanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18,19,19,20,20,20-heptatriacontafluoro-	65104-65-6
Ethanaminium, N,N-diethyl-N-methyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, methyl sulfate, polymer with 2-ethylhexyl 2-methyl-2-propenoate, α -fluoro- ω -[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]poly(difluoromethylene), 2-hydroxyethyl 2-methyl-2-propenoate and N-(hydroxymethyl)-2-propenamide	65636-35-3
Ethanaminium, N,N,N-triethyl-, salt with 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-1-octanesulfonic acid (1:1)	56773-42-3
Ethaneperoxoic acid, reaction products with 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl thiocyanate and 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl thiocyanate	182176-52-9
Ethanol, 2,2'-iminobis-, compd. with α -fluoro- ω -[2-(phosphonooxy)ethyl]poly(difluoromethylene) (1:1)	65530-74-7

Appendix F: EPCRA Section 313 TRI, Per- and Polyfluoroalkyl Substances by Alphabetical Name

Chemical Name	CAS No.
Ethanol, 2,2'-iminobis-, compd. with α -fluoro- ω -[2-(phosphonooxy)ethyl]poly(difluoromethylene) (2:1)	65530-63-4
Ethanol, 2,2'-iminobis-, compd. with α,α' -[phosphinicobis(oxy-2,1-ethanediyl)]bis(ω -fluoropoly(difluoromethylene)) (1:1)	65530-64-5
N-Ethyl-N-(2-hydroxyethyl)perfluorooctanesulfonamide	1691-99-2
2-[Ethyl[(heptadecafluorooctyl)sulfonyl]amino]ethyl acrylate	423-82-5
2-[Ethyl[(heptadecafluorooctyl)sulfonyl]amino]ethyl methacrylate	376-14-7
Fatty acids, C6-18, perfluoro, ammonium salts	72623-77-9
Fatty acids, C7-13, perfluoro, ammonium salts	72968-38-8
Fatty acids, linseed-oil, γ - ω -perfluoro-C8-14-alkyl esters	178535-23-4
Glycine, N-ethyl-N-[(heptadecafluorooctyl)sulfonyl]-, potassium salt	2991-51-7
Glycine, N-[(heptadecafluorooctyl)sulfonyl]-N-propyl-, potassium salt	55910-10-6
Glycine, N-ethyl-N-[(pentadecafluoroheptyl)sulfonyl]-, potassium salt	67584-62-7
Glycine, N-ethyl-N-[(tridecafluorohexyl)sulfonyl]-, potassium salt	67584-53-6
Glycine, N-ethyl-N-[(undecafluoropentyl)sulfonyl]-, potassium salt	67584-52-5
3-[[Heptadecafluorooctyl)sulfonyl]amino]-N,N,N-trimethyl-1-propanaminium iodide	1652-63-7
2-[[Heptadecafluorooctyl)sulfonyl]methylamino]ethyl acrylate	25268-77-3
1-Heptanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-N-(2-hydroxyethyl)-N-methyl-	68555-76-0
1-Heptanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-	68957-62-0
1-Heptanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-, ammonium salt	68259-07-4
1-Heptanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-, compd. with 2,2'-iminobis[ethanol] (1:1)	70225-15-9
1-Heptanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-, potassium salt	60270-55-5
1-Heptanesulfonyl fluoride, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-	335-71-7
Hexadecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14-nonacosafuoro-16-iodo-	65510-55-6
1-Hexadecanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,16-nonacosafuoro-	60699-51-6
Hexafluoropropylene oxide dimer acid	13252-13-6
Hexafluoropropylene oxide dimer acid ammonium salt	62037-80-3
Hexane, 1,6-diisocyanato-, homopolymer, γ - ω -perfluoro-C6-20-alc.-blocked	135228-60-3
1-Hexanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-N-(2-hydroxyethyl)-N-methyl-	68555-75-9
1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, ammonium salt	68259-08-5
1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, potassium salt	3871-99-6
1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, compd. with 2,2'-iminobis[ethanol] (1:1)	70225-16-0
Lithium (perfluorooctane)sulfonate	29457-72-5
Methyl perfluorooctanoate	376-27-2

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Chemical Name	CAS No.
1-Nonanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,9-nonadecafluoro-, ammonium salt	17202-41-4
Octadecanoic acid, pentatriacontafluoro-	16517-11-6
1-Octadecanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18,18-tritriacontafluoro-	65104-67-8
1-Octanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-methyl-	31506-32-8
1-Octanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-(2-hydroxyethyl)-N-methyl-	24448-09-7
1-Octanesulfonamide, N-butyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-(2-hydroxyethyl)-	2263-09-4
1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-[3-(trimethoxysilyl)propyl]-	61660-12-6
1-Octanesulfonamide, N-[3-(dimethyloxidoamino)propyl]-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-, potassium salt	178094-69-4
1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-[2-(phosphonooxy)ethyl]-, diammonium salt	67969-69-1
1-Octanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-, ammonium salt	29081-56-9
1-Octanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-, compd. with 2,2'-iminobis[ethanol] (1:1)	70225-14-8
Octanoyl fluoride, pentadecafluoro-	335-66-0
1-Pentanesulfonamide, 1,1,2,2,3,3,4,4,5,5,5-undecafluoro-N-(2-hydroxyethyl)-N-methyl-	68555-74-8
1-Pentanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,5-undecafluoro-, potassium salt	3872-25-1
1-Pentanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,5-undecafluoro-, ammonium salt	68259-09-6
1-Pentanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,5-undecafluoro-, compd. with 2,2'-iminobis[ethanol] (1:1)	70225-17-1
Pentanoic acid, 4,4-bis[(γ-ω-perfluoro-C8-20-alkyl)thio] derivs.	71608-60-1
Perfluorobutanesulfonate	45187-15-3
Perfluorobutane sulfonic acid	375-73-5
Perfluorodecanoic acid	335-76-2
Perfluorododecanoic acid	307-55-1
Perfluorohexanesulfonic acid	355-46-4
Perfluorononanoic acid	375-95-1
Perfluorooctane sulfonic acid	1763-23-1
Perfluorooctanoic acid	335-67-1
Perfluorooctyl Ethylene	21652-58-4
Perfluorooctylsulfonfyl fluoride	307-35-7
Perfluoropalmitic acid	67905-19-5
Perfluorotetradecanoic acid	376-06-7
Phosphinic acid, bis(perfluoro-C6-12-alkyl) derivs.	68412-69-1
Phosphonic acid, perfluoro-C6-12-alkyl derivs.	68412-68-0

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Chemical Name	CAS No.
Phosphoric acid, γ-ω-perfluoro-C8-16-alkyl esters, compds. with diethanolamine	74499-44-8
Poly(difluoromethylene), α-[2-(acetyloxy)-3-[(carboxymethyl)dimethylammonio]propyl]-ω-fluoro-, inner salt	123171-68-6
Poly(difluoromethylene), α-[2-[(2-carboxyethyl)thio]ethyl]-ω-fluoro-	65530-83-8
Poly(difluoromethylene), α-[2-[(2-carboxyethyl)thio]ethyl]-ω-fluoro-, lithium salt	65530-69-0
Poly(difluoromethylene), α-fluoro-ω-(2-hydroxyethyl)-, dihydrogen 2-hydroxy-1,2,3-propanetricarboxylate	65605-56-3
Poly(difluoromethylene), α-fluoro-ω-(2-hydroxyethyl)-, hydrogen 2-hydroxy-1,2,3-propanetricarboxylate	65605-57-4
Poly(difluoromethylene), α-fluoro-ω-(2-hydroxyethyl)-, 2-hydroxy-1,2,3-propanetricarboxylate (3:1)	65530-59-8
Poly(difluoromethylene), α-fluoro-ω-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-	65530-66-7
Poly(difluoromethylene), α-fluoro-ω-[2-[(1-oxo-2-propenyl)oxy]ethyl]-, homopolymer	65605-73-4
Poly(difluoromethylene), α-fluoro-ω-[2-[(1-oxooctadecyl)oxy]ethyl]-	65530-65-6
Poly(difluoromethylene), α-fluoro-ω-[2-(phosphonooxy)ethyl]-	65530-61-2
Poly(difluoromethylene), α-fluoro-ω-[2-(phosphonooxy)ethyl]-, ammonium salt	95144-12-0
Poly(difluoromethylene), α-fluoro-ω-[2-(phosphonooxy)ethyl]-, diammonium salt	65530-72-5
Poly(difluoromethylene), α-fluoro-ω-[2-(phosphonooxy)ethyl]-, monoammonium salt	65530-71-4
Poly(difluoromethylene), α-fluoro-ω-[2-sulphoethyl]-	80010-37-3
Poly(difluoromethylene), α,α'-[phosphinobis(oxy-2,1-ethanediyl)]bis[ω-fluoro-	65530-62-3
Poly(difluoromethylene), α,α'-[phosphinobis(oxy-2,1-ethanediyl)]bis[ω-fluoro-, ammonium salt	65530-70-3
Poly(oxy-1,2-ethanediyl), α-[2-[ethyl[(tridecafluorohexyl)sulfonyl]amino]ethyl]-ω-hydroxy-	56372-23-7
Poly(oxy-1,2-ethanediyl), α-[2-[ethyl[(heptadecafluorooctyl)sulfonyl]amino]ethyl]-ω-hydroxy-	29117-08-6
Poly(oxy-1,2-ethanediyl), α-[2-[ethyl[(pentadecafluoroheptyl)sulfonyl]amino]ethyl]-ω-methoxy-	68958-60-1
Poly(oxy-1,2-ethanediyl), α-[2-[ethyl[(heptadecafluorooctyl)sulfonyl]amino]ethyl]-ω-methoxy-	68958-61-2
Poly(oxy-1,2-ethanediyl), α-[2-[ethyl[(undecafluoropentyl)sulfonyl]amino]ethyl]-ω-hydroxy-	68298-80-6
Poly(oxy-1,2-ethanediyl), α-[2-[ethyl[(pentadecafluoroheptyl)sulfonyl]amino]ethyl]-ω-hydroxy-	68298-81-7
Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy-, ether with α-fluoro-ω-(2-hydroxyethyl)poly(difluoromethylene) (1:1)	65545-80-4
Poly(oxy-1,2-ethanediyl), α-methyl-ω-hydroxy-, 2-hydroxy-3-[(γ-ω-perfluoro-C6-20-alkyl)thio]propyl ethers	70983-59-4
Poly[oxy(methyl-1,2-ethanediyl)], α-[2-[ethyl[(heptadecafluorooctyl)sulfonyl]amino]ethyl]-ω-hydroxy-	37338-48-0
Poly[oxy(methyl-1,2-ethanediyl)], α-[2-[ethyl[(pentadecafluoroheptyl)sulfonyl]amino]ethyl]-ω-hydroxy-	68259-39-2
Poly[oxy(methyl-1,2-ethanediyl)], α-[2-[ethyl[(tridecafluorohexyl)sulfonyl]amino]ethyl]-ω-hydroxy-	68259-38-1

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Chemical Name	CAS No.
Poly[oxy(methyl-1,2-ethanediyl)], α -[2-[ethyl[(undecafluoropentyl)sulfonyl]amino]ethyl]- ω -hydroxy-	68310-17-8
Potassium perfluorobutane sulfonate	29420-49-3
Potassium perfluorooctanesulfonate	2795-39-3
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-[2-[(γ - ω -perfluoro-C4-20-alkyl)thio]acetyl] derivs., inner salts	1078715-61-3
1-Propanaminium, 3-[[heptadecafluorooctyl)sulfonyl]amino]-N,N,N-trimethyl-, chloride	38006-74-5
1-Propanaminium, 2-hydroxy-N,N,N-trimethyl-, 3-[(γ - ω -perfluoro-C6-20-alkyl)thio] derivs., chlorides	70983-60-7
1-Propanaminium, N,N,N-trimethyl-3-[(tridecafluorohexyl)sulfonyl]amino]-, chloride	52166-82-2
1-Propanaminium, N,N,N-trimethyl-3-[(pentadecafluoroheptyl)sulfonyl]amino]-, iodide	67584-58-1
1-Propanaminium, N,N,N-trimethyl-3-[(pentadecafluoroheptyl)sulfonyl]amino]-, chloride	68555-81-7
1-Propanaminium, N,N,N-trimethyl-3-[(tridecafluorohexyl)sulfonyl]amino]-, iodide	68957-58-4
1-Propanaminium, N,N,N-trimethyl-3-[(undecafluoropentyl)sulfonyl]amino]-, chloride	68957-55-1
1-Propanaminium, N,N,N-trimethyl-3-[(undecafluoropentyl)sulfonyl]amino]-, iodide	68957-57-3
Propanedioic acid, mono(γ - ω -perfluoro-C8-12-alkyl) derivs., bis[4-(ethenyloxy)butyl] esters	238420-80-9
Propanedioic acid, mono(γ - ω -perfluoro-C8-12-alkyl) derivs., di-me esters	238420-68-3
1,3-Propanediol, 2,2-bis[[(γ - ω -perfluoro-C10-20-alkyl)thio]methyl] derivs., phosphates, ammonium salts	148240-89-5
1,3-Propanediol, 2,2-bis[[(γ - ω -perfluoro-C4-10-alkyl)thio]methyl] derivs., phosphates, ammonium salts	148240-85-1
1,3-Propanediol, 2,2-bis[[(γ - ω -perfluoro-C6-12-alkyl)thio]methyl] derivs., phosphates, ammonium salts	148240-87-3
1,3-Propanediol, 2,2-bis[[(γ - ω -perfluoro-C6-12-alkyl)thio]methyl] derivs., polymers with 2,2-bis[[(γ - ω -perfluoro-C10-20-alkyl)thio]methyl]-1,3-propanediol, 1,6-diisocyanato-2,2,4(or 2,4,4)-trimethylhexane, 2-heptyl-3,4-bis(9-isocyanatononyl)-1-pentylcyclohexane and 2,2'-(methylimino)bis[ethanol]	1078142-10-5
1-Propanesulfonic acid, 2-methyl-, 2-[[1-oxo-3-[(γ - ω -perfluoro-C4-16-alkyl)thio]propyl]amino] derivs., sodium salts	68187-47-3
2-Propenoic acid, butyl ester, telomer with 2-[[heptadecafluorooctyl)sulfonyl]methylamino]ethyl 2-propenoate, 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl 2-propenoate, α -(2-methyl-1-oxo-2-propenyl)- ω -hydroxypoly(oxy-1,4-butanediyl), α -(2-methyl-1-oxo-2-propenyl)- ω -[(2-methyl-1-oxo-2-propenyl)oxy]poly(oxy-1,4-butanediyl), 2-[methyl[(pentadecafluoroheptyl)sulfonyl]amino]ethyl 2-propenoate, 2-[methyl[(tridecafluorohexyl)sulfonyl]amino]ethyl 2-propenoate, 2-[methyl[(undecafluoropentyl)sulfonyl]amino]ethyl 2-propenoate and 1-octanethiol	68227-96-3
2-Propenoic acid, 2-[butyl[(heptadecafluorooctyl)sulfonyl]amino]ethyl ester, telomer with 2-[butyl[(pentadecafluoroheptyl)sulfonyl]amino]ethyl 2-propenoate, methyloxirane polymer with oxirane di-2-propenoate, methyloxirane polymer with oxirane mono-2-propenoate and 1-octanethiol	68298-62-4
2-Propenoic acid, esters, 2-methyl-, dodecyl ester, polymer with α -fluoro- ω -[2-[(2-methyl-1-oxo-2-propen-1-yl)oxy]ethyl]poly(difluoromethylene)	65605-58-5
2-Propenoic acid, 2-[ethyl[(pentadecafluoroheptyl)sulfonyl]amino]ethyl ester	59071-10-2

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Chemical Name	CAS No.
2-Propenoic acid, 2-[[heptadecafluorooctyl)sulfonyl]methylamino]ethyl ester, polymer with 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl 2-propenoate, 2-[methyl[(pentadecafluoroheptyl)sulfonyl]amino]ethyl 2-propenoate, 2-[methyl[(tridecafluorohexyl)sulfonyl]amino]ethyl 2-propenoate, 2-[methyl[(undecafluoropentyl)sulfonyl]amino]ethyl 2-propenoate and α -(1-oxo-2-propenyl)- ω -methoxypoly(oxy-1,2-ethanediyl)	68867-60-7
2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymers with Bu acrylate, γ - ω -perfluoro-C8-14-alkyl acrylate and polyethylene glycol monomethacrylate, 2,2'-azobis[2,4-dimethylpentanenitrile]-initiated	150135-57-2
2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymers with γ - ω -perfluoro-C10-16-alkyl acrylate and vinyl acetate, acetates	196316-34-4
2-Propenoic acid, 2-methyl-, dodecyl ester, polymer with α -fluoro- ω -[2-[(2-methyl-1-oxo-2-propen-1-yl)oxy]ethyl]poly(difluoromethylene) and N-(hydroxymethyl)-2-propenamide	65605-59-6
2-Propenoic acid, 2-methyl-, 2-ethylhexyl ester, polymer with α -fluoro- ω -[2-[(2-methyl-1-oxo-2-propen-1-yl)oxy]ethyl]poly(difluoromethylene), 2-hydroxyethyl 2-methyl-2-propenoate and N-(hydroxymethyl)-2-propenamide	68239-43-0
2-Propenoic acid, 2-methyl-, 2-[ethyl[(heptadecafluorooctyl)sulfonyl]amino]ethyl ester, polymer with 2-[ethyl[(nonafluorobutyl)sulfonyl]amino]ethyl 2-methyl-2-propenoate, 2-[ethyl[(pentadecafluoroheptyl)sulfonyl]amino]ethyl 2-methyl-2-propenoate, 2-[ethyl[(tridecafluorohexyl)sulfonyl]amino]ethyl 2-methyl-2-propenoate, 2-[ethyl[(undecafluoropentyl)sulfonyl]amino]ethyl 2-methyl-2-propenoate and octadecyl 2-methyl-2-propenoate	68555-91-9
2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuorododecyl ester	2144-54-9
2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuorododecyl ester, polymer with 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafuorotetradecyl 2-methyl-2-propenoate and 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl 2-methyl-2-propenoate	65104-45-2
2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl ester	1996-88-9
2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,16-nonacosafuorohexadecyl ester	4980-53-4
2-Propenoic acid, 2-methyl-, octadecyl ester, polymer with 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuorododecyl 2-propenoate, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl 2-propenoate and 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafuorotetradecyl 2-propenoate	142636-88-2
2-Propenoic acid, 2-[methyl[(pentadecafluoroheptyl)sulfonyl]amino]ethyl ester	68084-62-8
2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafuorotetradecyl ester	6014-75-1
2-Propenoic acid, 2-methyl-, polymer with butyl 2-methyl-2-propenoate, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl 2-propenoate, 2-hydroxyethyl 2-methyl-2-propenoate and methyl 2-methyl-2-propenoate	200513-42-4

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Chemical Name	CAS No.
2-Propenoic acid, 2-methyl-, hexadecyl ester, polymers with 2-hydroxyethyl methacrylate, .gamma.-.omega.-perfluoro-C10-6-alkyl acrylate and stearyl methacrylate	203743-03-7
2-Propenoic acid, 2-[methyl[(tridecafluorohexyl)sulfonyl]amino]ethyl ester	67584-57-0
2-Propenoic acid, 2-[methyl[(undecafluoropentyl)sulfonyl]amino]ethyl ester	67584-56-9
Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)-, salt with 4-methylbenzenesulfonic acid (1:1)	61798-68-3
Silane, (3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)trimethoxy-	83048-65-1
Silane, trichloro(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)-	78560-44-8
Silicic acid (H ₄ SiO ₄), disodium salt, reaction products with chlorotrimethylsilane and 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-1-decanol	125476-71-3
Siloxanes and Silicones, (3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)oxy Me, hydroxy Me, Me octyl, ethers with polyethylene glycol mono-Me ether	143372-54-7
Sodium perfluorooctanoate	335-95-5
Sulfluramid	4151-50-2
Sulfonic acids, C6-12-alkane, γ-ω-perfluoro, ammonium salts	180582-79-0
Tetradecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12-pentacosafuoro-14-iodo-	30046-31-2
1-Tetradecanesulfonyl chloride, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafuoro-	68758-57-6
1-Tetradecanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafuoro-	39239-77-5
1,1,2,2-Tetrahydroperfluorodecyl acrylate	27905-45-9
1,1,2,2-Tetrahydroperfluorododecyl acrylate	17741-60-5
1,1,2,2-Tetrahydroperfluorohexadecyl acrylate	34362-49-7
1,1,2,2-Tetrahydroperfluorotetradecyl acrylate	34395-24-9
Thiocyanic acid, γ-ω-perfluoro-C4-20-alkyl esters	97553-95-2
Thiols, C4-10, γ-ω-perfluoro	68140-18-1
Thiols, C4-20, γ-ω-perfluoro, telomers with acrylamide and acrylic acid, sodium salts	1078712-88-5
Thiols, C6-12, γ-ω-perfluoro	68140-20-5
Thiols, C8-20, γ-ω-perfluoro, telomers with acrylamide	70969-47-0
Thiols, C10-20, γ-ω-perfluoro	68140-21-6

Appendix G: CERCLA Hazardous Substances – Chemical Categories[Top](#)

Appendix G: CERCLA Hazardous Substances - Chemical Categories

This appendix provides further definition or clarification, where available, of CERCLA chemical categories that are listed with N.A. as the CAS Registry Number in the consolidated list. Many chemicals that are members of a category may also be listed separately as a CERCLA chemical with its own RQ. For example, cobaltous bromide, CAS No. 7789-43-7, appears on the CERCLA list separately.

Radionuclides listed under CERCLA are provided in a separate list in Appendix B of this document, with RQs in Curies. EPCRA section 313 (TRI) Chemical Category definitions are found in Appendix C.

Each CERCLA chemical category in this appendix was designated as a CERCLA hazardous substance based on a statutory source (See NOTE following 40 CFR 302.4 (b)). The statutory Codes (1), (2), (3), or (4), shown after each category name, refers to a statutory source, listed in the table below.

Statutory Code	Statutory Source	Applicable CFR citation
(1)	Section 311(b)(2) of the Clean Water Act	Hazardous Substances 40 CFR 116.4
(2)	Section 307(a) of the Clean Water Act	Priority Toxic Pollutants 40 CFR 401.15
(3)	Section 112 of the Clean Air Act	Hazardous Air Pollutants List- Section 112(b)(1) of CAA Revisions to List 40 CFR 60.60-63
(4)	Section 3001 of RCRA	Hazardous Wastes 40 CFR 261.33(e) and (f) ("P" and "U" Haz. Waste chemicals)

Endnote reference letters refer to sources of information used to define or clarify the category. These endnote references appear at the end of the appendix.

Arsenic and Compounds (2), (3)

Unless otherwise specified, this listing is defined as including any unique chemical substance that contains arsenic as part of that chemical's infrastructure.ⁱ

Arsenic Compounds (inorganic including arsine)ⁱⁱ

Antimony and Compounds (2), (3)

Unless otherwise specified, this listing is defined as including any unique chemical substance that contains antimony as part of that chemical's infrastructure.ⁱ For antimony and compounds, the term *compounds* shall include organic and inorganic compounds.ⁱⁱⁱ

Beryllium and Compounds (2), (3)

Unless otherwise specified, this listing is defined as including any unique chemical substance that contains beryllium as part of that chemical's infrastructure.ⁱ

Appendix G: CERCLA Hazardous Substances – Chemical Categories**Cadmium and Compounds (2), (3)**

Unless otherwise specified, this listing is defined as including any unique chemical substance that contains cadmium as part of that chemical's infrastructure.ⁱ

Chromium and Compounds (2), (3)

Unless otherwise specified, this listing is defined as including any unique chemical substance that contains chromium as part of that chemical's infrastructure.ⁱ

Chlorinated Benzenes (2)

Chlorobenzene^{iv}

1,2-dichlorobenzene^{iv}

1,3-dichlorobenzene^{iv}

1,4-dichlorobenzene^{iv}

1,2,4-trichlorobenzene^{iv}

Hexachlorobenzene^{iv}

Chlorinated Ethanes (2)

Chloroethane^{iv}

1,1-dichloroethane^{iv}

1,2-dichloroethane^{iv}

1,1,1-trichloroethane^{iv}

1,1,2-trichloroethane^{iv}

1,1,2,2-tetrachloroethane^{iv}

Hexachloroethane^{iv}

Chlorinated Phenols (2)

2-chlorophenol^{iv}

2,4-dichlorophenol^{iv}

2,4,6-trichlorophenol^{iv}

Parametachlorocresol (4-chloro-3-methyl phenol)^{iv}

Chloroalkyl Ethers (2)

Bis(2-chloroethoxy)methane^{iv}

Bis(2-chloroethyl) ether^{iv}

2-chloroethyl vinyl ether (mixed)^{iv}

Cobalt and Compounds (3)

Unless otherwise specified, this listing is defined as including any unique chemical substance that contains cobalt as part of that chemical's infrastructure.ⁱ

Appendix G: CERCLA Hazardous Substances – Chemical Categories**Coke Oven Emissions** (3)**Copper and Compounds** (2)**Creosote** (4)

RCRA Toxic hazardous waste code U051 40 CFR 261.33(f)

Creosote, as defined by the American Wood Preservers Association, is a distillate derived from coal tar, derived by the high temperature carbonization of bituminous coal. Creosote consists primarily of liquid, solid polycyclic aromatic hydrocarbons (PAHs), other heteronuclear aromatic substances, and some tar acids and bases. Creosote Oil (Common Name) has the following active ingredients:

Coal Tar CAS Number 8007-45-2

Creosote Oil CAS Number 61789-28-4

Coal Tar Creosote CAS No. 8001-58-9

Currently there are thirteen creosote industrial wood preservative products registered as pesticides with USEPA under FIFRA. All have “creosote” as part of the product name.v

Cyanides (2), (3)**Cyanide and Compounds** (2), (3)

X'CN where X = H' or any other group where a formal dissociation may occur. For example KCN or Ca(CN)₂.^{vi}

Cyanides (soluble salts and complexes, not otherwise specified) P030 Haz. Waste (4)**DDT and Metabolites** (2)4,4-DDT^{iv}4,4-DDE (p,p-DDX)^{iv}4,4-DDD (p,p-TDE)^{iv}

DDT means the compounds DDT, DDD, and DDE as identified by the chemical names:(DDT)-1,1,1-trichloro-2,2-bis(p-chlorophenyl) ethane and some o,p'-isomers; (DDD) or (TDE)-1,1-dichloro-2,2-bis(p-chlorophenyl) ethane and some o,p'-isomers; (DDE)-1,1-dichloro-2,2-bis(p-chlorophenyl) ethylene.^{vii}

Endosulfan and Metabolites (2)Alpha-endosulfan^{iv}Beta-endosulfan^{iv}Endosulfan sulfate^{iv}**Endrin and metabolites** (2)Endrin^{iv}Endrin aldehyde^{iv}

Endrin means the compound endrin as identified by the chemical name 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-1,4-endo-5,8-endodimethanonaphthalene.^{vii}

Appendix G: CERCLA Hazardous Substances – Chemical Categories**Fine Mineral Fibers**

(3)

Includes mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag fibers (or other mineral derived fibers) of average diameter 1 micrometer or less. ^{vi}

Glycol Ethers

(3)

Glycol ethers include mono- and di-ethers of ethylene glycol, diethylene glycol, and triethylene glycol $R-(OCH_2CH_2)_n-OR'$. Where:

$n = 1, 2, \text{ or } 3$;

$R = \text{alkyl C7 or less; or}$

$R = \text{phenyl or alkyl substituted phenyl;}$

$R' = H \text{ or alkyl C7 or less; or}$

OR' consisting of carboxylic acid ester, sulfate, phosphate, nitrate, or sulfonate. ^{viii}

The substance ethylene glycol monobutyl ether (EGBE, 2-Butoxyethanol) (CAS Number 111-76-2) is deleted from the list of hazardous air pollutants established by 42 U.S.C. 7412(b)(1)[Section 112(b)(1) of CAA]. ^{ix}

Haloethers

(2)

4-chlorophenyl phenyl ether ^{iv}

2-bromophenyl phenyl ether ^{iv}

Bis(2-chloroisopropyl) ether ^{iv}

Haloethers (other than those listed elsewhere; includes chlorophenylphenyl ethers, bromophenylphenyl ether, bis(dichloroisopropyl) ether, bis-(chloroethoxy) methane and polychlorinated diphenyl ethers). ^x

Halomethanes

(2)

Methylene chloride (dichloromethane) ^{iv}

Methyl chloride (chloromethane) ^{iv}

Methyl Bromide (bromomethane) ^{iv}

Bromoform (tribromomethane) ^{iv}

Dichlorobromomethane ^{iv}

Chlorodibromomethane ^{iv}

Halomethanes (other than those listed elsewhere; includes methylene chloride, methylchloride, methylbromide, bromoform, dichlorobromomethane). ^x

Heptachlor and Metabolites

(2)

Heptachlor ^{iv}

Heptachlor epoxide (BHC-hexachlorocyclohexane) ^{iv}

Lead and Compounds

(2), (3)

Unless otherwise specified, this listing is defined as including any unique chemical substance that contains lead as part of that chemical's infrastructure. ⁱ

Appendix G: CERCLA Hazardous Substances – Chemical Categories**Manganese and Compounds (3)**

Unless otherwise specified, this listing is defined as including any unique chemical substance that contains manganese as part of that chemical's infrastructure.ⁱ

Mercury and Compounds (2), (3)

Unless otherwise specified, this listing is defined as including any unique chemical substance that contains mercury as part of that chemical's infrastructure.ⁱ

Nickel and Compounds (2), (3)

Unless otherwise specified, this listing is defined as including any unique chemical substance that contains nickel as part of that chemical's infrastructure.ⁱ

Nitrosamines (2)

N-nitrosodimethylamine^{iv}

N-nitrosodiphenylamine^{iv}

N-nitrosodi-n-propylamine^{iv}

Nitrophenols (other than chlorinated) (2)

2-nitrophenol^{iv}

4-nitrophenol^{iv}

2,4-dinitrophenol^{iv}

4,6-dinitro-o-cresol (4,6-dinitro-2-methylphenol)^{iv}

Pentachlorophenol^{iv}

Phenol^{iv}

2,4-dimethylphenol^{iv} Nitrophenols (including 2,4-dinitrophenol, dinitrocresol).^x

Phthalate Esters (2)

Bis(2-ethylhexyl)phthalate^{iv}

Butyl benzyl phthalate^{iv}

Di-N-butyl phthalate^{iv}

Di-n-octyl phthalate^{iv}

Diethyl phthalate^{iv}

Dimethyl phthalate^{iv}

Appendix G: CERCLA Hazardous Substances – Chemical Categories**Polychlorinated Biphenyls (PCBs)**

(1), (2), (3)

PCB-1242 (Arochlor 1242)^{iv}PCB-1254 (Arochlor 1254)^{iv}PCB-1221 (Arochlor 1221)^{iv}PCB-1232 (Arochlor 1232)^{iv}PCB-1248 (Arochlor 1248)^{iv}PCB-1260 (Arochlor 1260)^{iv}PCB-1016 (Arochlor 1016)^{iv}

Polychlorinated Biphenyls (PCBs) means a mixture of compounds composed of the biphenyl molecule which has been chlorinated to varying degrees.

Polycyclic Organic Matter

(3)

Includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100° C.**Error! Bookmark not defined.**

Polynuclear Aromatic Hydrocarbons (PAHs)

(2)

Acenaphthene^{iv}1,2-benzanthracene (benzo(a) anthracene)^{iv}Benzo(a)pyrene (3,4-benzo-pyrene)^{iv}3,4-benzofluoranthene (benzo(b) fluoranthene)^{iv}11,12-benzofluoranthene (benzo(k) fluoranthene)^{iv}Chrysene^{iv}Acenaphthalene^{iv}Anthracene^{iv}1,12-benzoperylene (benzo (ghi) perylene)^{iv}Fluorene^{iv}Fluoranthene^{iv}Phenanthrene^{iv}1,2,5,6-bibenzanthracene (dibenzo(ah) anthracene)^{iv}Indeno (1,2,3-cd) pyrene (2,3-o-phenylene pyrene)^{iv}Pyrene^{iv}

Polynuclear aromatic hydrocarbons (including benzanthracenes, benzopyrenes, benzofluoranthene, chysenes, dibenz-anthracenes, and indenopyrenes).^x

Radionuclides

(3) See Appendix B in this document.

A type of atom which spontaneously undergoes radioactive decay.^{vi}

Appendix G: CERCLA Hazardous Substances – Chemical Categories**Selenium and Compounds** (2), (3)

Unless otherwise specified, this listing is defined as including any unique chemical substance that contains selenium as part of that chemical's infrastructure.ⁱ

Silver and Compounds (2), (3)

Unless otherwise specified, this listing is defined as including any unique chemical substance that contains silver as part of that chemical's infrastructure.ⁱ

Thallium and Compounds (2)**Zinc and Compounds** (2)

Endnotes

- i. 42 U.S.C. 7412(b)(1)-[Section 112(b)(1) of CAA] “NOTE” after the Initial List of Pollutants: For all listings above which contain the word "compounds" ... the following applies: Unless otherwise specified, these listings are defined as including any unique chemical substance that contains the named chemical (i.e., antimony, arsenic, etc.) as part of that chemical's infrastructure.
- ii. 42 U.S.C. 7412(b)(1)-[Section 112(b)(1) of CAA] Initial List of Pollutants.
- iii. 40 CFR 401.15 footnote 2 (for antimony and compounds only).
- iv. USEPA. 1994. Water Quality Standards Handbook, Second Edition, Appendix P- List of 126 CWA Section 307(a) Priority Toxic Pollutants. <http://water.epa.gov/scitech/swguidance/standards/handbook> or <https://www.epa.gov/sites/production/files/2014-10/documents/handbook-appendixp.pdf>
- v. USEPA. Sept 2008. Reregistration Eligibility Decision for Creosote (Case 0139). https://www3.epa.gov/pesticides/chem_search/reg_actions/reregistration/red_PC-025004_25-Sep-08.pdf
- vi. 42 U.S.C. 7412(b)(1)-[Section 112(b)(1) of CAA] Footnotes after Initial List of Pollutants.
- vii. 40 CFR 129.4 Toxic Pollutants.
- viii. 40 CFR 63.62 Redefinition of glycol ethers.
- ix. 40 CFR 63.63 Deletion of ethylene glycol monobutyl ether from the list of hazardous air pollutants.
- x. 40 CFR 401.15 Toxic Pollutants List.

EXHIBIT B

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGIONS 3 AND 5

_____)	
IN THE MATTER OF:)	
)	CERCLA Docket No. V-W-23-C-004
East Palestine Train Derailment Site)	
East Palestine, Columbiana County, Ohio)	
)	
Norfolk Southern Railway Company,)	
)	
Respondent)	
)	
Proceeding under Section 106(a))	UNILATERAL ADMINISTRATIVE
of the Comprehensive Environmental)	ORDER FOR REMOVAL ACTIONS
Response, Compensation, and Liability)	
Act, as amended, 42 U.S.C. § 9606(a).)	
_____)	

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I. JURISDICTION AND GENERAL PROVISIONS

1. This Administrative Order (“Order”) is issued under the authority vested in the President of the United States by Section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act, (CERCLA), as amended, 42 U.S.C. § 9606(a). This authority was delegated to the Administrator of the United States Environmental Protection Agency (EPA) by Executive Order No. 12580, 52 Fed. Reg. 2923 (Jan. 23, 1987), and further delegated to the Regional Administrators by EPA Delegation Nos. 14-14A and 14-14B. This authority was further redelegated by the Regional Administrator of EPA Region 5 to the Director of the EPA Region 5 Superfund & Emergency Management Division by EPA Region 5 Delegation Nos. 14-14-A (Aug. 24, 2015) and 14-14-B (May 11, 1996) and by the Regional Administrator of EPA Region 3 to the Director of the EPA Region 3 Superfund & Emergency Management Division by EPA Region 3 Delegation Nos. 14-14-A (April 15, 2019) and 14-14-B (April 15, 2019).

2. This Order pertains to property located at the Rail Line east northeast of the intersection of East Taggart Street and North Pleasant Drive (Latitude: 40.8360395; Longitude: 80.5222838) in East Palestine, Ohio (the “East Palestine Train Derailment Site”), which is more specifically defined in the definition of “Site” in Paragraph 6, below. In addition to the response actions that are currently occurring, this Order requires Respondent to conduct removal actions described herein to abate an imminent and substantial endangerment to the public health or welfare or the environment that may be presented by the actual or threatened release of hazardous substances at or from the Site.

3. EPA has notified the State of Ohio and the Commonwealth of Pennsylvania (collectively, the “States”) of this action pursuant to Section 106(a) of CERCLA, 42 U.S.C. § 9606(a).

II. PARTIES BOUND

4. This Order applies to and is binding upon Respondent and its successors and assigns. Any change in ownership or control of the Site or change in the corporate or partnership status of Respondent, including, but not limited to, any transfer of assets or real or personal property, shall not alter Respondent’s responsibilities under this Order.

5. Respondent shall provide a copy of this Order to each contractor hired to perform the Work required by this Order and to each person representing the Respondent with respect to the Site or the Work, and shall condition all contracts entered into hereunder upon performance of the Work in conformity with the terms of this Order. Respondent or its contractors shall provide written notice of the Order to all subcontractors hired to perform any portion of the Work required by this Order. Respondent shall nonetheless be responsible for ensuring that its contractors and subcontractors perform the Work in accordance with the terms of this Order.

III. DEFINITIONS

6. Unless otherwise expressly provided in this Order, terms used in this Order that are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in CERCLA or in such regulations. Whenever terms listed below are used in this

Order or in appendices to or documents incorporated by reference into this Order, the following definitions shall apply:

“Affected Property” shall mean all real property at the Site and any other real property where EPA determines, at any time, that access or land, water, or other resource, use restrictions are needed to implement the removal action.

“CERCLA” shall mean the Comprehensive Environmental Response, Compensation, and Liability Act, as amended, 42 U.S.C. §§ 9601-9675.

“Day” or “day” shall mean a calendar day. In computing any period of time under this Order, where the last day would fall on a Saturday, Sunday, or federal or State holiday, the period shall run until the close of business of the next working day.

“Effective Date” shall mean the effective date of this Order as provided in Section VIII.

“EPA” shall mean the United States Environmental Protection Agency and its successor departments, agencies, or instrumentalities.

“EPA Hazardous Substance Superfund” shall mean the Hazardous Substance Superfund established by the Internal Revenue Code, 26 U.S.C. § 9507.

“OEPA” shall mean the Ohio Environmental Protection Agency and any successor departments or agencies of the State of Ohio.

“PADEP” shall mean the Pennsylvania Department of Environmental Protection and any successor departments or agencies of the Commonwealth of Pennsylvania.

“Interest” shall mean interest at the rate specified for interest on investments of the EPA Hazardous Substance Superfund established by 26 U.S.C. § 9507, compounded annually on October 1 of each year, in accordance with 42 U.S.C. § 9607(a). The applicable rate of interest shall be the rate in effect at the time the interest accrues. The rate of interest is subject to change on October 1 of each year. Rates are available online at <https://www.epa.gov/superfund/superfund-interest-rates>.

“National Contingency Plan” or “NCP” shall mean the National Oil and Hazardous Substances Pollution Contingency Plan promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300, and any amendments thereto.

“Non-Respondent Owner” shall mean any person, other than Respondent, that owns or controls any Affected Property. The phrase “Non-Respondent Owner’s Affected Property” means Affected Property owned or controlled by Non-Respondent Owner.

“Order” shall mean this Unilateral Administrative Order and all appendices attached hereto. In the event of conflict between this Order and any appendix, this Order shall control.

“Paragraph” shall mean a portion of this Order identified by an Arabic numeral or an upper or lower case letter.

“Parties” shall mean EPA and Respondent.

“Post-Removal Site Control” shall mean actions necessary to ensure the effectiveness and integrity of the removal action to be performed pursuant to this Order consistent with Sections 300.415(l) and 300.5 of the NCP and “Policy on Management of Post-Removal Site Control” (OSWER Directive No. 9360.2-02, Dec. 3, 1990).

“RCRA” shall mean the Resource Conservation and Recovery Act, also known as the Solid Waste Disposal Act, as amended, 42 U.S.C. §§ 6901-6992.

“Respondent” shall mean Norfolk Southern Railway Company.

“Response Costs” shall mean all costs, including, but not limited to, direct and indirect costs, that the United States incurs in monitoring and supervising Respondent’s performance of the Work to determine whether such performance is consistent with the requirements of this Order, including costs incurred in reviewing deliverables submitted pursuant to this Order, as well as costs incurred in overseeing implementation of this Order, including, but not limited to, payroll costs, contractor costs, travel costs, and laboratory costs.

“Section” shall mean a portion of this Order identified by a Roman numeral.

“Site” shall mean the areal extent of where hazardous substances have come to be located, in Ohio and Pennsylvania, as a result of the Norfolk Southern Railway Company train derailment that occurred on February 3, 2023, at the rail line northeast of East Taggart Street and North Pleasant Drive intersection in East Palestine, Columbiana County, Ohio (Latitude: 40.8360395 Longitude: 80.5222838) and the subsequent emergency response activities including, but not limited to, breached rail cars and the controlled “vent and burn” that occurred on February 6, 2023.

“States” shall mean the State of Ohio and the Commonwealth of Pennsylvania.

“Transfer” shall mean to sell, assign, convey, lease, mortgage, or grant a security interest in, or where used as a noun, a sale, assignment, conveyance, or other disposition of any interest by operation of law or otherwise.

“United States” shall mean the United States of America and each department, agency, and instrumentality of the United States, including EPA.

“Waste Material” shall mean (a) any “hazardous substance” under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14); (b) any pollutant or contaminant under Section 101(33) of CERCLA, 42 U.S.C. § 9601(33); (c) any “solid waste” under Section 1004(27) of RCRA, 42 U.S.C. § 6903(27); (d) any “hazardous waste” under 37 Ohio Rev. Code § 3734.01(J); (e) any “hazardous substance” under 27 P.S. § 6020.103 and (f) any “hazardous waste” under 25 Pa. Code 261a.3.

“Work” shall mean all activities Respondent is required to perform under this Order, except those required by Section XV (Retention of Records).

IV. FINDINGS OF FACT

7. The East Palestine Train Derailment Site is located in East Palestine, Columbiana County, Ohio, at approximately Latitude: 40.8360395; Longitude: -80.5222838. which is more specifically defined in the definition of “Site” in Paragraph 6 above.

8. The area immediately south of the Site is a mixed-use commercial, industrial, and residential area. The area north of the Site is a commercial and industrial area, with additional residences to the northeast. The nearest residences are less than 1,000 feet from the derailment Site.

9. The East Palestine Train Derailment Site is located within a mixed-use residential, commercial, and industrial area, with residential properties northwest, southeast, and south of the derailment area. Residential properties are also located along contaminated waterways which became contaminated after the derailment and are within the affected area. The Ohio-Pennsylvania border is located less than a mile from the derailment location. The nearest public well supply is located approximately one (1) mile from the derailment location. A ditch, located on the south side of the tracks flows west for approximately 1,000 feet before it empties into Sulphur Run, which joins Leslie Run, to Bull Creek, to North Fork Little Beaver Creek, to Little Beaver Creek before emptying into the Ohio River. Wetlands and State Line Lake are located immediately adjacent to the Northeast of the Site. Segments of the affected waterways are considered to be habitat for the Eastern Hellbender, an endangered species of salamander.

10. Norfolk Southern Railway Company owns and operates a Class I freight railroad that passes through the town of East Palestine, Ohio.

11. A train derailment occurred at approximately 2055 eastern standard time (EST) on February 3, 2023, in East Palestine, Columbiana County, Ohio, less than a mile from the Ohio-Pennsylvania border. Norfolk Southern Railway Company reported the incident at 2253 EST to the National Response Center (NRC). Federal, state, and local officials arrived on scene after the derailment. EPA mobilized to the Site with EPA Superfund Technical Assessment and Response Team (START) at approximately 2330 EST on February 3, 2023. Norfolk Southern Railway Company, Ohio Environmental Protection Agency (OEPA), Columbiana County, Village of East Palestine, Pennsylvania Department of Environmental Protection (PADEP), Ohio Department of Natural Resources (ODNR), Butler County Incident Management Team (IMT), Federal Railroad Administration (FRA), National Transportation Safety Board (NTSB), and other agencies also mobilized to the Site. EPA coordinated with the Interagency Modeling and Atmospheric Assessment Center (IMAAC) to provide plume modeling throughout the duration of the derailment fire.

12. At the time of the initial report, the number of derailed rail cars (of the 149) was unknown but 20 of the rail cars were listed by Norfolk Southern Railway Company as carrying hazardous materials, described as: Vinyl Chloride, Stabilized (5); Sulfuric Acid (5); Ethylene Glycol Monobutyl Ether (1); Butyl Acrylate, Stabilized (2); Combustible Liquids nos (1);

Isobutylene (1) Ethyl-Hexyl Acrylate(1); Empty Residue – last contained liquified petroleum gas (LPG) (1); Residue – last contained Benzene (2).

13. The derailment resulted in a large fire affecting numerous rail cars, including rail cars carrying hazardous materials, although the status (e.g. breached, burning, etc.) was initially unknown due to safety concerns associated with the fire as well as the position of the derailed cars, which affected the ability of responders to identify which rail cars were actively breached and/or burning. Initially, a shelter-in-place order was recommended, and firefighting efforts were stood down due to safety concerns; however, an evacuation order was enacted by the Village of East Palestine on February 4, 2023. The fire continued to burn throughout the following days. Local citizens reported smoke from the fire observed over the State of Ohio and the Commonwealth of Pennsylvania.

14. Ohio officials, working with the Fire Chief as Incident Commander, evacuated residents within a one-mile radius and took other emergency actions to protect human health and the environment in the aftermath of the derailment. EPA supported these efforts with air monitoring and sampling, including EPA's Airborne Spectral Photometric Environmental Collection Technology (ASPECT) aircraft, and sampling and indoor air monitoring on a voluntary basis. In addition, a mobile laboratory was mobilized to analyze air samples.

15. After monitoring on February 5, 2023, indicated rising temperatures in a tank car containing vinyl chloride, Respondent, in consultation with Ohio response officials, vented and burned product into a flare trench on February 6, 2023, in order to prevent a catastrophic explosion of the rail car.

16. The February 6, 2023, controlled “vent and burn” involved five (5) rail cars containing vinyl chloride in a flare trench to prevent a catastrophic explosion of the rail cars. In advance of the controlled “vent and burn” and based on plume modeling conducted by IMAAC and the Ohio National Guard 52nd Civil Support Team, the evacuation radius described in Paragraph 13 was increased to a roughly one-mile by two-mile area pursuant to evacuation orders issued by the State of Ohio and the Commonwealth of Pennsylvania.

17. Norfolk Southern Railway Company provided response officials at the Site, including EPA, with a list of the contents of the rail cars which derailed at the Site. See Appendix A. On February 3, 2023, at 2201 EST, Norfolk Southern Railway Company provided response officials at the Site with a consist (manifest) which details the volume of materials in each rail car. See Appendix B. Rail cars 23 through 74 were the rail cars which derailed, eleven of which contained hazardous materials. See Appendix C for a labeled aerial photo of a subset of those cars. The hazardous materials contained in these eleven rail cars are as follows:

Rail Car #	Hazardous Materials	Amount
TILX 402025	Vinyl Chloride	178,300 pounds
OCPX 80235	Vinyl Chloride	177,250 pounds

OCPX 80179	Vinyl Chloride	177,600 pounds
GATX 95098	Vinyl Chloride	178,150 pounds
OCPX 80370	Vinyl Chloride	176,100 pounds
SHPX 211226	Ethylene Glycol Monobutyl Ether	185,750 pounds
DOWX 73168	Ethylhexyl Acrylate	205,900 pounds
UTLX 205907	Butyl Acrylate	180,000 pounds
NATX 35844	Isobutylene	155,642 pounds
DPRX 259013	Benzene	Residue
DPRX 258671	Benzene	Residue

18. Releases of hazardous substances occurred after the derailment and subsequent fires. Releases to the air occurred when hazardous substances spilled from the rail cars, when smoke from burning rail cars was produced, and hazardous substances including vinyl chloride, phosgene and hydrogen chloride were released. Releases to surface water occurred when liquid product exited rail cars and also when run-off from firefighting efforts at the derailment location moved through a ditch to Sulphur Run, which joins Leslie Run, to Bull Creek, to North Fork Little Beaver Creek, to Little Beaver Creek, and then the Ohio River. Releases to soil occurred (1) when liquid product exited rail cars after the derailment (2) when run-off from firefighting efforts at the derailment location flowed from the right-of-way to adjoining property, and (3) when ash from the burns landed on soil. Local citizens reported smoke from the burns observed over the State of Ohio and the Commonwealth of Pennsylvania.

19. Populations at risk include:

- a. Human residents;
- b. Human workers;
- c. Wildlife including but not limited to:
 - (1) Several fish species as well as the eastern hellbender, an endangered species with habitat within portions of the affected waterways;
 - (2) Domesticated pets;

- d. Agricultural areas which supply the human food supply and the animal food chain.

20. The following are health/environmental effects associated with the hazardous materials involved in the derailment, or were detected in air, water, soil, and sediment samples, or were combustion by-products of some of those chemicals at the Site:

- a. **Vinyl Chloride:** Breathing high levels of vinyl chloride can cause dizziness or sleepiness. Breathing very high levels can cause fainting and breathing even higher levels can cause death. Studies have shown chronic inhalation of vinyl chloride for several years causes changes in the structure of the liver, and individuals who breath high levels are more likely to experience these changes. Highly exposed workers have also developed liver cancer (angiosarcoma of the liver). The effects of ingesting high levels of vinyl chloride are unknown. Dermal exposure may cause numbness, redness, and blisters. Animal studies have shown that exposure to vinyl chloride during pregnancy can affect the growth and development of the fetus. Vinyl chloride is a known human carcinogen according to the Department of Health and Human Services (DHHS), the International Agency for Research or Cancer (IARC), and the EPA.

- b. **Ethylene Glycol Monobutyl Ether:** Routes of exposure include ingestion and dermal contact. Inhaling Ethylene glycol monobutyl ether can irritate the nose and throat. It can also cause nausea, vomiting, diarrhea, and abdominal pain. Exposure can cause headache, dizziness, lightheadedness, and passing out. It may damage the liver and kidneys.

- c. **Isobutylene:** Acute exposure to isobutylene is associated with the following health effects: irritation of eyes, nose, and throat; dermal contact can cause frostbite; headache, dizziness, lightheadedness, and fatigue. Higher levels of isobutylene can cause coma and death. Chronic health hazards include cancer hazard, reproductive hazard, and other long-term health effects.

- d. **Benzene:** Breathing very high levels of benzene can result in death, while high levels can cause drowsiness, dizziness, rapid heart rate, headaches, tremors, confusion, and unconsciousness. Exposure through ingestion can cause vomiting, irritation of the stomach, dizziness, sleepiness, convulsions, rapid heart rate, and death. The major effect of benzene from chronic exposure is on the blood. Benzene causes harmful effects on the bone marrow and can cause a decrease in red blood cells leading to anemia. It can also cause excessive bleeding and can affect the immune system, increasing the chance of infection. Benzene may affect menstruation and decrease the size of ovaries in women following many months of exposure to high levels. Benzene is a known human carcinogen according to the Department of Health and Human Services, the International Agency for Research or Cancer (IARC), and the EPA.

- e. **Butyl Acrylate:** Butyl acrylate can cause health effects due to inhalation and through dermal contact. Contact with butyl acrylate can irritate the nose, throat, and lungs. Butyl acrylate may cause a skin allergy. Exposure to butyl acrylate can cause headache, dizziness, nausea, and vomiting. Repeated exposure can lead to permanent lung damage.

- f. **Phosgene:** Exposure to phosgene in the air can cause eye and throat irritation. High amounts in the air can cause severe lung damage. Exposure can occur through

inhalation, dermal contact, or (less likely) ingestion. Higher levels of phosgene can cause lungs to swell, making it difficult to breathe. Even higher levels can result in severe lung damage that might lead to death. Dermal contact with phosgene can result in chemical burns or may cause frostbite.

g. **Hydrogen Chloride:** Hydrogen chloride is irritating and corrosive to any tissue it contacts. Brief exposure to low levels causes throat irritation. Exposure to higher levels can result in rapid breathing, narrowing of the bronchioles, blue coloring of the skin, accumulation of fluid in the lungs, and even death. Exposure to even higher levels can cause swelling and spasm of the throat and suffocation. Some people may develop an inflammatory reaction to hydrogen chloride. This condition is called reactive airways dysfunction syndrome (RADS), a type of asthma caused by some irritating or corrosive substances. Depending on the concentration, hydrogen chloride can produce conditions from mild irritation to severe burns of the eyes and skin. Long-term exposure to low levels can cause respiratory problems, eye and skin irritation, and discoloration of the teeth. Swallowing concentrated hydrochloric acid will cause severe corrosive injury to the lips, mouth, throat, esophagus, and stomach.

21. Acrylate odors were noted by responders during indoor air monitoring.

22. Acrylate odors along Sulphur Run, Leslie Run, Bull Creek, North Fork Little Beaver Creek, and Little Beaver Creek were noted by responders during sampling and containment activities.

23. ODNr reported an estimated number of aquatic animals killed at approximately 3,500. Those aquatic animals were found in Sulphur Run, Leslie Run, Bull Creek, and a portion of the North Fork of Beaver Creek. Most of the fish appear to be small suckers, minnows, darters, and sculpin. Most of these deaths are believed to have been caused by the immediate release of contaminants into the water.

24. Respondent is a corporation organized under the laws of the state of Virginia. Respondent is liable under CERCLA § 107(a)(1) as the owner and/or operator of the train that derailed at the Site, and as the owner and/or operator of the rail line from which the train derailed.

V. CONCLUSIONS OF LAW AND DETERMINATIONS

25. Based on the Findings of Fact set forth above, and the administrative record, EPA has determined that:

a. The East Palestine Train Derailment Site is a “facility” as defined by Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

b. Norfolk Southern Train 32N and the individual rail cars comprising the train are “rolling stock” and therefore are a “facility” as defined by Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

c. Respondent is a “person” as defined by Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).

d. Respondent is a liable party under one or more provisions of Section 107(a) of CERCLA, 42 U.S.C. § 9607(a).

(1) Respondent Norfolk Southern Railway Company is the “owner” and/or “operator” of the facility, as defined by Section 101(20) of CERCLA, 42 U.S.C. § 9601(20), and within the meaning of Section 107(a)(1) of CERCLA, 42 U.S.C. § 9607(a)(1).

(2) Respondent Norfolk Southern Railway Company is the “owner” and/or “operator” of the facility at the time of disposal of hazardous substances at the facility, as defined by Section 101(20) of CERCLA, 42 U.S.C. § 9601(20), and within the meaning of Section 107(a)(2) of CERCLA, 42 U.S.C. § 9607(a)(2).

e. The contaminants vinyl chloride, benzene, and butyl acrylate found at the Site, as identified in the Findings of Fact above, are each a “hazardous substance” as defined by Section 101(14) of CERCLA, 42 U.S.C. § 9601(14) that may present an imminent and substantial danger to public health or welfare under Section 104(a)(1) of CERCLA, 42 U.S.C. § 9604(a)(1).

f. The conditions described in Paragraphs 7-24 of the Findings of Fact above constitute an actual and/or threatened “release” of a hazardous substance from the facility as defined by Section 101(22) of CERCLA, 42 U.S.C. § 9601(22).

g. The conditions at the Site may constitute a threat to public health or welfare or the environment, based on the factors set forth in Section 300.415(b)(2) of the NCP. These factors include, but are not limited to, the following:

(1) **actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances and pollutants or contaminants.** This factor is present at the Site due to the existence of the discharge of vinyl chloride and butyl acrylate to one or more of the following: surface soils, surface waters, and air. ODNr reports the total estimated number of aquatic animals killed at approximately 3,500. Those animals were found in Sulphur Run, Leslie Run, Bull Creek, and a portion of the North Fork of Beaver Creek. Most of the fish appear to be small suckers, minnows, darters, and sculpin. Most of these deaths are believed to have been caused by the immediate release of contaminants into the water. Additionally, waste piles containing mixtures of vinyl chloride, butyl acrylate, ethylhexyl acrylate, and ethylene glycol monobutyl ether remain on site and pose a threat of exposure should containment be compromised. Acrylate odors continue to be noted along portions of Sulphur and Leslie Run.

(2) **actual or potential contamination of drinking water supplies or sensitive ecosystems.** This factor is present at the Site due to the release of vinyl chloride, butyl acrylate, ethylhexyl acrylate, and ethylene glycol monobutyl ether to surface soils and surface waters. The releases have impacted drinking water

resulting in the closures of water intakes on the Ohio River and have the potential to affect groundwater used for drinking water and irrigation;

(3) **hazardous substances and pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release.** This factor is present at the Site due to the presence of damaged rail cars containing isobutylene and residual benzene. As of February 18, 2023, approximately 1,557,000 gallons of liquid wastes have been collected from the Site. OEPA has reported to EPA that as of February 17, 2023, 247,000 gallons have already been transported off site for disposal;

(4) **high levels of hazardous substances and pollutants or contaminants in soils largely at or near the surface, that may migrate.** This factor is present at the Site due to the breaching of rail cars releasing, but not limited to, vinyl chloride, butyl acrylate, ethylhexyl acrylate, and ethylene glycol monobutyl ether. As of February 18, 2023, approximately 13,600 cubic yards of grossly contaminated soils have been excavated and staged on Site;

(5) **weather conditions that may cause hazardous substances and pollutants or contaminants to migrate or be released.** This factor is present at the Site due to the continuing presence of hazardous substances, including but not limited to, vinyl chloride, butyl acrylate, ethylhexyl acrylate, and ethylene glycol monobutyl ether that were released from the derailment location to adjacent properties and downstream surface waters. Rainfall events have the potential to cause further releases to surface waters. Dry weather and remediation activities have the potential to result in the release of contaminated soils by tracking or dust emissions;

(6) **threat of fire or explosion.** This factor is present at the Site due to the continued presence of rail cars containing isobutylene (DOT Class 2.1 Flammable Gas) and residual benzene (DOT Class 3 Flammable Liquid);

(7) **other situations or factors that may pose threats to public health or welfare or the environment.** This factor is present at the Site due to the fact that a full assessment of the extent of contamination has not been completed.

h. The conditions described in Paragraphs 7-24 of the Findings of Fact above may constitute an imminent and substantial endangerment to the public health or welfare or the environment because of an actual or threatened release of a hazardous substance from the facility within the meaning of Section 106(a) of CERCLA, 42 U.S.C. § 9606(a).

i. The removal actions required by this Order are necessary to protect the public health, welfare, or the environment.

VI. ORDER

26. Based upon the Findings of Fact, Conclusions of Law and Determinations set forth above, and the administrative record, Respondents are hereby ordered to comply with all provisions of this Order and any modifications to this Order, including all appendices to this Order and all documents incorporated by reference into this Order.

VII. OPPORTUNITY TO CONFER

27. No later than 24 hours after this Order is signed by the Regional Administrators or their delegates, Respondent may, in writing, a) request a conference with EPA to discuss this Order, including its applicability, the factual findings and the determinations upon which it is based, the appropriateness of any actions Respondent is ordered to take, or any other relevant and material issues or contentions that Respondent may have regarding this Order, or b) notify EPA that it intends to submit written comments or a statement of position in lieu of requesting a conference.

28. If a conference is requested, Respondent may appear in person or by an attorney or other representative. Any such conference shall be held in person or by video conference at the discretion of EPA no later than 1 day after the conference is requested. Any written comments or statements of position on any matter pertinent to this Order must be submitted no later than 1 day after the conference or 2 days after this Order is signed if Respondent does not request a conference. This conference is not an evidentiary hearing, does not constitute a proceeding to challenge this Order, and does not give Respondent a right to seek review of this Order. Any request for a conference or written comments or statements should be submitted to:

Catherine Garypie, Office of Regional Counsel
U.S. Environmental Protection Agency
Region 5
77 West Jackson Blvd. (Mail Code C-14J)
Chicago, Illinois 60604
312-886-5825
garypie.catherine@epa.gov

and

Naeha Dixit, Office of Regional Counsel
U.S. Environmental Protection Agency
Region 5
77 West Jackson Blvd. (Mail Code C-14J)
Chicago, Illinois 60604
312-353-5542
dixit.naeha@epa.gov

VIII. EFFECTIVE DATE

29. This Order shall be effective 2 days after the Order is signed by the Regional Administrators or their delegates unless a conference is requested or notice is given that written materials will be submitted in lieu of a conference in accordance with Section VII (Opportunity to Confer). If a conference is requested or such notice is submitted, this Order shall be effective on the 2nd day after the day of the conference, or if no conference is requested, on the 1st day after written materials, if any, are submitted, unless EPA determines that the Order should be modified based on the conference or written materials. In such event, EPA shall notify Respondent, within the applicable 5 day period, that EPA intends to modify the Order. The modified Order shall be effective 5 days after it is signed by the Regional Administrators or their delegates.

IX. NOTICE OF INTENT TO COMPLY

30. On or before the Effective Date, Respondent shall notify EPA in writing of Respondent's irrevocable intent to comply with this Order. Such written notice shall be sent to EPA as provided in Paragraph 28. Respondent's written notice shall describe, using facts that exist on or prior to the Effective Date, any "sufficient cause" defense asserted by such Respondent under Sections 106(b) and 107(c)(3) of CERCLA, 42 U.S.C. §§ 9606(b) and 9607(c)(3). The absence of a response by EPA to the notice required by this Paragraph shall not be deemed to be acceptance of Respondent's assertions. Failure of Respondent to provide such notice of intent to comply within this time period shall, as of the Effective Date, be treated as a violation of this Order by Respondent.

X. DESIGNATION OF CONTRACTOR, PROJECT COORDINATOR, AND ON-SCENE COORDINATOR

31. **Selection of Contractors, Personnel.** All Work performed under this Order shall be under the direction and supervision of qualified personnel. Within 3 days after the Effective Date, and before the Work outlined below begins, Respondent shall notify EPA in writing of the names, titles, addresses, telephone numbers, email addresses, and qualifications of the personnel, including contractors, subcontractors, consultants, and laboratories to be used in carrying out such Work. If, after the commencement of the Work, Respondent retains additional contractors or subcontractors, Respondent shall notify EPA of the names, titles, contact information, and qualifications of such contractors or subcontractors retained to perform the Work at least 5 days prior to commencement of Work by such additional contractors or subcontractors. EPA retains the right, at any time, to disapprove of any or all of the contractors and/or subcontractors retained by Respondent. If EPA disapproves of a selected contractor or subcontractor, Respondent shall retain a different contractor or subcontractor and shall notify EPA of that contractor's or subcontractor's name, title, contact information, and qualifications within 2 days after EPA's disapproval. With respect to any proposed contractor, Respondent shall demonstrate that the proposed contractor demonstrates compliance with ASQ/ANSI E4:2014 "Quality management systems for environmental information and technology programs – Requirements with guidance for use" (American Society for Quality, February 2014), by submitting a copy of the proposed contractor's Quality Management Plan (QMP). The QMP should be prepared in accordance with "EPA Requirements for Quality Management Plans (QA/R-2)" (EPA/240/B-01/002, Reissued May 2006) or equivalent documentation as determined by EPA. The qualifications of the persons

undertaking the Work for Respondent shall be subject to EPA's review for verification based on objective assessment criteria (e.g., experience, capacity, technical expertise) and that they do not have a conflict of interest with respect to the project.

32. Within 3 days after the Effective Date, Respondent shall designate a Project Coordinator who shall be responsible for administration of the Work required by this Order and shall submit to EPA the designated Project Coordinator's name, title, address, telephone number, email address, and qualifications. To the greatest extent possible, the Project Coordinator shall be present on Site or readily available during the Work. EPA retains the right to disapprove of the designated Project Coordinator who does not meet the requirements of Paragraph 31 (Selection of Contractors, Personnel). If EPA disapproves of the designated Project Coordinator, Respondent shall retain a different Project Coordinator and shall notify EPA of that person's name, title, contact information, and qualifications within 1 day following EPA's disapproval. Respondent shall have the right to change its Project Coordinator, subject to EPA's right to disapprove. Respondent shall notify EPA 5 days before such a change is made. The initial notification may be made orally, but shall be promptly followed by a written notification. Communications between Respondent and EPA, and all documents concerning the activities performed pursuant to this Order, shall be directed to the Project Coordinator. Receipt by Respondent's Project Coordinator of any notice or communication from EPA relating to this Order shall constitute receipt by Respondent.

33. EPA has designated Ralph Dollhopf of the EPA Region 5, Superfund & Emergency Response Division, Emergency Response Branch, as the On-Scene Coordinator (OSC) for the Site and for Work performed in Ohio. EPA has designated Jack Kelly of the EPA Region 3, Superfund & Emergency Response Division, Emergency Response Branch, as its OSC for Work performed in Pennsylvania.

34. EPA will notify Respondent of a change of one of its designated OSCs. Communications between Respondent and EPA, and all documents concerning the activities performed pursuant to this Order, shall be directed to the OSCs in accordance with Paragraph 39.a(1).

35. The OSCs shall be responsible for overseeing Respondent's implementation of this Order. The OSCs shall have the authority vested in a Remedial Project Manager (RPM) and an OSC by the NCP, including the authority to halt, conduct, or direct any Work required by this Order, or to direct any other response action when s/he determines that conditions at the Site constitute an emergency situation or may present a threat to public health or welfare or the environment. Absence of one or both OSCs from the Site shall not be cause for stoppage or delay of Work.

XI. WORK TO BE PERFORMED

36. In addition to the actions that it is currently performing, Respondent shall perform, at a minimum, all actions necessary to implement the following items. The actions to be implemented generally include, but are not limited to, the following:

- a. In conjunction with other federal, state and local agencies, Respondent shall participate in all required elements of the Site's response organization structure (Incident Command System) as established and coordinated by the OSCs;
- b. Develop and implement a Security Plan;
- c. Develop and implement an air monitoring and sampling plan for:
 - (1) Indoor air of occupied structures;
 - (2) Perimeter community air monitoring at any remediation areas;
- d. Develop and implement a plan for the identification and delineation of the extent of contamination for:
 - (1) Surface and subsurface soils;
 - (2) Surface waters and sediments;
 - (3) Groundwater;
 - (4) Drinking water sources;
- e. Develop and implement a plan for the containment and remediation of contaminated surface and sub-surface soils, surface waters and sediments, groundwater (including private, municipal, agricultural wells);
- f. As of the date of issuance of this Order, EPA expects to clean up dust and debris in the interior and exterior of buildings resulting from the February 3, 2023, train derailment and subsequent fires upon request. If at a later date EPA determines that it is appropriate for Respondent to take over this task, Respondent will be required to develop and implement a plan for these cleanup activities;
- g. Expected boundaries for work identified above are described below:
 - (1) For air, surface soil, interior and exterior home cleaning (1-mile x 2-mile evacuation area);
 - (2) For surface water and sediments (length of the contaminated surface waters from unnamed ditch to the Ohio River);
 - (3) For subsurface soils and groundwater (perimeter of and within the areal extent of derailment location); and
 - (4) Drinking water sources (1 mile radius from the derailment and a 250-foot buffer from the center line of the contaminated surface waters from unnamed ditch to the Ohio River).

h. Remove, secure, stage, consolidate, package, transport, and dispose of identified hazardous substances, pollutants, and contaminants at EPA-approved disposal facilities in accordance with the EPA's Off-Site Rule 40 C.F.R. § 300.440; and

i. Taking any response action to address all releases or threatened releases which EPA determines may pose an imminent and substantial endangerment to the public health or the environment.

37. For any regulation or guidance referenced in the Order, the reference will be read to include any subsequent modification, amendment, or replacement of such regulation or guidance. Such modifications, amendments, or replacements apply to the Work only after Respondent receives notification from EPA of the modification, amendment, or replacement.

38. Work Plan and Implementation

a. Within 7 days after the Effective Date, in accordance with Paragraph 39 (Submission of Deliverables), Respondent shall submit to EPA for review and approval draft work plans for performing the removal actions (collectively, the "Removal Work Plan") generally described in Paragraph 36 above. The draft Removal Work Plan shall provide a description of, and an expeditious schedule for, the Work required by this Order. The Removal Work Plan must describe all community impact mitigation activities to be performed to: (a) reduce impacts (e.g., air emissions, dust, odor, traffic, noise, temporary relocation, negative economic effects) to residential areas, schools, playgrounds, healthcare facilities, or recreational public areas frequented by community members ("Community Areas") during implementation of the Removal Action; (b) conduct monitoring in Community Areas of impacts from the implementation of the Removal Action; (c) communicate validated sampling data; and (d) make adjustments during the implementation of the Removal Action in order to further reduce negative impacts to affected Community Areas. The Removal Work Plan shall contain information about impacts to Community Areas that is sufficient to assist EPA's OSCs and Community Involvement Coordinator(s) in performing the evaluations described in the Superfund Community Involvement Handbook, OLEM 9230.0-51 (Mar. 2020). The Handbook is located at <https://www.epa.gov/superfund/superfund-community-involvementtools-and-resources#handbook>.

b. EPA may approve, disapprove, require revisions to, or modify the draft Removal Work Plan in whole or in part. If EPA requires revisions, Respondent shall submit a revised draft Removal Work Plan within 3 days after receipt of EPA's notification of the required revisions. Respondent shall implement the Removal Work Plan as approved in writing by EPA in accordance with the schedule approved by EPA. Once approved, or approved with modifications, the Removal Work Plan, the schedule, and any subsequent modifications shall be incorporated into and become fully enforceable under this Order.

c. Upon approval or approval with modifications of the Removal Work Plan Respondent shall commence implementation of the Work in accordance with the schedule included therein. Respondent shall not commence or perform any Work except in conformance with the terms of this Order. Respondent shall notify EPA at least 48 hours prior to performing any Work on-Site pursuant to the EPA-approved Removal Work Plan.

d. Unless otherwise provided in this Order, any additional deliverables that require EPA approval under the Removal Work Plan shall be reviewed and approved by EPA in accordance with this Paragraph.

e. Any non-compliance with any EPA-approved plans, reports, specifications, schedules, or other deliverables shall be considered a violation of the requirements of this Order. Determinations of non-compliance shall be made by EPA. Approval of the Removal Work Plan shall not limit EPA's authority under the terms of this Order to require Respondents to conduct activities consistent with this Order to accomplish the Work outlined in this Section.

39. Submission of Deliverables

a. General Requirements for Deliverables

(1) Except as otherwise provided in this Order, Respondent shall direct all submissions required by this Order to the OSCs at Ralph Dollhopf, On-Scene Coordinator, U.S. EPA Region 5, 2565 Plymouth Road – Mail Code SEAA, Ann Arbor, Michigan, 48105 (231/301-0559), dollhopf.ralph@epa.gov and Jack Kelly, On-Scene Coordinator, U.S. EPA Region 3, 1600 John F. Kennedy Boulevard, Philadelphia, Pennsylvania, 19103-2852 (215/814-3112), kelly.jack@epa.gov. Respondent shall submit all deliverables required by this Order or any approved work plan to EPA in accordance with the schedule set forth in such plan.

(2) Respondent shall direct all submissions required to be submitted to the State of Ohio by this Order to:

Anne Vogel, Director
Ohio EPA - Director's Office
P.O. Box 1049
Columbus, Ohio 43216-1049
614-644-2782
Anne.Vogel@epa.ohio.gov

(3) Respondent shall submit all deliverables in electronic form. Technical specifications for sampling and monitoring data and spatial data are addressed in Paragraph 39.b. All other deliverables shall be submitted to EPA in the form specified by an OSC. If any deliverable includes maps, drawings, or other exhibits that are larger than 8.5 x 11 inches, Respondent shall also provide EPA with paper copies of such exhibits.

b. Technical Specifications for Deliverables

(1) Sampling and monitoring data should be submitted in standard Regional EDD format as specified by EPA Regions 5 and 3. Other delivery methods may be allowed if electronic direct submission presents a significant burden or as technology changes.

(2) Spatial data, including spatially-referenced data and geospatial data, should be submitted: (a) in the ESRI File Geodatabase format ; and (b) as unprojected geographic coordinates in decimal degree format using North American Datum 1983 (NAD83) or World Geodetic System 1984 (WGS84) as the datum. If applicable, submissions should include the collection method(s). Projected coordinates may optionally be included but must be documented. Spatial data should be accompanied by metadata, and such metadata should be compliant with the Federal Geographic Data Committee (FGDC) Content Standard for Digital Geospatial Metadata and its EPA profile, the EPA Geospatial Metadata Technical Specification. An add-on metadata editor for ESRI software, the EPA Metadata Editor (EME), complies with these FGDC and EPA metadata requirements and is available at <https://www.epa.gov/geospatial/epa-metadata-editor>.

(3) Each file must include an attribute name for each site unit or sub-unit submitted. Consult <https://www.epa.gov/geospatial/geospatial-policies-and-standards> for any further available guidance on attribute identification and naming.

(4) Spatial data submitted by Respondent does not, and is not intended to, define the boundaries of the Site.

40. **Sampling and Analysis Plan.** Within 7 days after the Effective Date, Respondent shall submit a Sampling and Analysis Plan to EPA for review and approval. This plan shall consist of a Field Sampling Plan (FSP) and a Quality Assurance Project Plan (QAPP) that is consistent with the plans cited in the Work to Be Performed and the NCP, including, but not limited to, “Guidance for Quality Assurance Project Plans (QA/G-5)” EPA/240/R-02/009 (December 2002), “EPA Requirements for Quality Assurance Project Plans (QA/R-5)” EPA 240/B-01/003 (March 2001, reissued May 2006), and “Uniform Federal Policy for Quality Assurance Project Plans, Parts 1-3 EPA/505/B-04/900A-900C (March 2005). Upon its approval by EPA, the Sampling and Analysis Plan shall be incorporated into and become enforceable under this Order.

41. **Health and Safety Plan.** Within 7 days after the Effective Date, Respondent shall submit for EPA review and comment a Health and Safety Plan that ensures the protection of on-site workers and the public during performance of on-site Work under this Order. This plan shall be prepared in accordance with “OSWER Integrated Health and Safety Program Operating Practices for OSWER Field Activities,” Pub. 9285.0-OIC (Nov. 2002), available on the NSCEP database at <https://www.epa.gov/nscep>, and “EPA’s Emergency Responder Health and Safety Manual,” OSWER Directive 9285.3-12 (July 2005 and updates), available at https://www.epaossc.org/_HealthSafetyManual/manual-index.htm. In addition, the plan shall comply with all currently applicable Occupational Safety and Health Administration (OSHA) regulations found at 29 C.F.R. Part 1910. If EPA determines that it is appropriate, the plan shall also include contingency planning. Respondent shall incorporate all changes to the plan recommended by EPA and shall implement the plan during the pendency of the removal actions.

42. **Community Involvement Plan.** EPA has the lead responsibility for implementing community involvement activities at the Site, including the preparation of a community involvement plan, in accordance with the NCP and EPA guidance. As requested by EPA, Respondents shall participate in community involvement activities, including participation in (a) the preparation of information regarding the Work for dissemination to the public (including compliance schedules and progress reports), with consideration given to the specific needs of the community, including translated materials and mass media and/or Internet notification and (b) public meetings that may be held or sponsored by EPA to explain activities at or relating to the Site.

43. **Post-Removal Site Control.** In accordance with the Removal Work Plan schedule, or as otherwise directed by EPA, Respondent shall submit a proposal for Post-Removal Site Control. Upon EPA approval, Respondent shall either conduct Post-Removal Site Control activities, or obtain a written commitment from another party for conduct of such activities, until such time as EPA determines that no further Post-Removal Site Control is necessary. Respondent shall provide EPA with documentation of all Post-Removal Site Control commitments. Respondent shall implement post-removal site control consistent with the provisions of 40 C.F.R. § 300.415(l).

44. **Progress Reports.** Respondent shall submit a written progress report to EPA concerning actions undertaken pursuant to this Order on a weekly basis, or as otherwise requested by EPA, from the date of receipt of EPA's approval of the Removal Work Plan until issuance of Notice of Completion of Work pursuant to Section XXVII, unless otherwise directed in writing by an OSC. These reports shall describe all significant developments during the preceding period, including the actions performed and any problems encountered, analytical data received during the reporting period, and the developments anticipated during the next reporting period, including a schedule of actions to be performed, anticipated problems, and planned resolutions of past or anticipated problems.

45. **Final Report.** Within 30 days after completion of all Work required by this Order, with the exception of any continuing obligations required by this Order, including, but not limited to, post-removal site controls, reimbursement of Response Costs, or record retention, Respondent shall submit for EPA review and approval a final report summarizing the actions taken to comply with this Order. EPA will review and approve the final report in accordance with Section XXVII (Notice of Completion of Work). The final report shall conform, at a minimum, with the requirements set forth in Section 300.165 of the NCP, "OSC Reports." The final report shall include a good faith estimate of total costs or a statement of actual costs incurred in complying with the Order, a listing of quantities and types of materials removed off-Site or handled on-Site, a discussion of removal and disposal options considered for those materials, a listing of the ultimate destination(s) of those materials, a presentation of the analytical results of all sampling and analyses performed, and accompanying appendices containing all relevant documentation generated during the removal actions (e.g., manifests, invoices, bills, contracts, and permits). The final report shall also include the following certification signed by a responsible corporate official of a Respondent or Respondent's Project Coordinator: "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or

those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

46. Off-Site Shipments

a. Respondent may ship hazardous substances, pollutants, and contaminants from the Site to an off-Site facility only if they comply with Section 121(d)(3) of CERCLA, 42 U.S.C. § 9621(d)(3), and 40 C.F.R. § 300.440. Respondent will be deemed to be in compliance with CERCLA § 121(d)(3) and 40 C.F.R. § 300.440 regarding a shipment if Respondent obtains a prior determination from EPA that the proposed receiving facility for such shipment is acceptable under the criteria of 40 C.F.R. § 300.440(b).

b. Respondent may ship Waste Material from the Site to an out-of-state waste management facility only if, prior to any shipment, they provide written notice to the appropriate state environmental official in the receiving facility’s state and to the OSCs. This notice requirement will not apply to any off-Site shipments when the total quantity of all such shipments will not exceed ten cubic yards. The written notice must include the following information, if available: (1) the name and location of the receiving facility; (2) the type and quantity of Waste Material to be shipped; (3) the schedule for the shipment; and (4) the method of transportation. Respondent shall also notify the state environmental official referenced above and the OSCs of any major changes in the shipment plan, such as a decision to ship the Waste Material to a different out-of-state facility. Respondent shall provide the notice after the award of the contract for the removal action and before the Waste Material is shipped.

c. Respondent may ship Investigation Derived Waste (IDW) from the Site to an off-Site facility only if they comply with Section 121(d)(3) of CERCLA, 42 U.S.C. § 9621(d)(3), 40 C.F.R. § 300.440, EPA’s “Guide to Management of Investigation Derived Waste,” OSWER 9345.3-03FS (Jan. 1992). Wastes shipped off-Site to a laboratory for characterization, and RCRA hazardous wastes that meet the requirements for an exemption from RCRA under 40 C.F.R. § 261.4(e) shipped off-Site for treatability studies, are not subject to 40 C.F.R. § 300.440.

XII. QUALITY ASSURANCE, SAMPLING, AND DATA ANALYSIS

47. Respondent shall use quality assurance, quality control, and other technical activities and chain of custody procedures for all samples consistent with “EPA Requirements for Quality Assurance Project Plans (QA/R5),” EPA/240/B-01/003 (March 2001, reissued May 2006), “Guidance for Quality Assurance Project Plans (QA/G-5),” EPA/240/R-02/009 (December 2002), and “Uniform Federal Policy for Quality Assurance Project Plans,” Parts 1-3, EPA/505/B-04/900A-900C (March 2005).

48. Access to Laboratories

a. Respondent shall ensure that EPA and State personnel and their authorized representatives are allowed access at reasonable times to all laboratories utilized by Respondent

pursuant to this Order. In addition, Respondent shall ensure that such laboratories shall analyze all samples submitted by EPA pursuant to the QAPP for quality assurance, quality control, and technical activities that will satisfy the stated performance criteria as specified in the QAPP and that sampling and field activities are conducted in accordance with the Agency's "EPA QA Field Activities Procedure," CIO 2105-P-02.1 (9/23/2014) available at <https://www.epa.gov/irmpoli8/epa-qa-field-activities-procedures>. Respondent shall ensure that the laboratories they utilize for the analysis of samples taken pursuant to this Order meet the competency requirements set forth in EPA's "Policy to Assure Competency of Laboratories, Field Sampling, and Other Organizations Generating Environmental Measurement Data under Agency-Funded Acquisitions" available at <https://www.epa.gov/measurements/documents-about-measurement-competency-under-acquisition-agreements> and that the laboratories perform all analyses using EPA-accepted methods. Accepted EPA methods consist of, but are not limited to, methods that are documented in the EPA's Contract Laboratory Program (<https://www.epa.gov/clp>), SW 846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (<https://www.epa.gov/hw-sw846>), "Standard Methods for the Examination of Water and Wastewater" (<https://www.standardmethods.org/>), 40 C.F.R. Part 136, "Air Toxics - Monitoring Methods" (<https://www.epa.gov/amtic/air-toxics-ambient-monitoring#methods>)." However, upon approval by EPA, Respondent may use other appropriate analytical method(s), as long as (i) quality assurance/quality control (QA/QC) criteria are contained in the method(s) and the method(s) are included in the QAPP, (ii) the analytical method(s) are at least as stringent as the methods listed above, and (iii) the method(s) have been approved for use by a nationally recognized organization responsible for verification and publication of analytical methods, e.g., EPA, ASTM, NIOSH, OSHA, etc. Respondent shall ensure that all laboratories they use for analysis of samples taken pursuant to this Order have a documented Quality System that complies with ASQ/ANSI E4:2014 "Quality management systems for environmental information and technology programs – Requirements with guidance for use" (American Society for Quality, February 2014), and "EPA Requirements for Quality Management Plans (QA/R-2)" EPA/240/B-01/002 (March 2001, reissued May 2006), or equivalent documentation as determined by EPA. EPA may consider Environmental Response Laboratory Network (ERLN) laboratories, laboratories accredited under the National Environmental Laboratory Accreditation Program (NELAP), or laboratories that meet International Standardization Organization (ISO 17025) standards or other nationally recognized programs as meeting the Quality System requirements. Respondent shall ensure that all field methodologies utilized in collecting samples for subsequent analysis pursuant to this Order are conducted in accordance with the procedures set forth in the QAPP approved by EPA.

b. Upon request, Respondent shall provide split or duplicate samples to EPA and the States or their authorized representatives. Respondent shall notify EPA and the States not less than 5 days in advance of any sample collection activity. In addition, EPA and the States shall have the right to take any additional samples that EPA or the States deem necessary. Upon request, EPA shall provide to Respondent split or duplicate samples of any samples it takes as part of EPA's oversight of Respondent's implementation of the Work.

c. Respondent shall submit to EPA and the States, in the next monthly progress report as described in Paragraph 44 (Progress Reports) copies of the results of all sampling and/or tests or other data obtained or generated by or on behalf of Respondent with respect to the Site and/or the implementation of this Order.

XIII. PROPERTY REQUIREMENTS

49. **Agreements Regarding Access and Non-Interference.** Respondent shall, with respect to any Non-Respondent Owner's Affected Property, use best efforts to secure from such Non-Respondent Owner an agreement, enforceable by Respondent and EPA, providing that such Non-Respondent Owner, and Respondent shall, with respect to Respondent's Affected Property: (i) provide EPA, the applicable State, Respondent, and their representatives, contractors, and subcontractors with access at all reasonable times to such Affected Property to conduct any activity regarding the Order, including those activities listed in Paragraph 49.a (Access Requirements); and (ii) refrain from using such Affected Property in any manner that EPA determines will pose an unacceptable risk to human health or to the environment due to exposure to Waste Material, or interfere with or adversely affect the implementation, integrity, or protectiveness of the removal action. Respondent shall provide a copy of such access agreements to EPA and the applicable State.

a. **Access Requirements.** The following is a list of activities for which access is required regarding the Affected Property:

- (1) Monitoring the Work;
- (2) Verifying any data or information submitted to EPA or the State;
- (3) Conducting investigations regarding contamination at or near the Site;
- (4) Obtaining samples;
- (5) Assessing the need for, planning, implementing, or monitoring response actions;
- (6) Assessing implementation of quality assurance and quality control practices as defined in the approved quality assurance quality control plan;
- (7) Implementing the Work pursuant to the conditions set forth in Section XIX (Enforcement/Work Takeover);
- (8) Inspecting and copying records, operating logs, contracts, or other documents maintained or generated by Respondent or its agents, consistent with Section XIV (Access to Information);
- (9) Assessing Respondent's compliance with the Order;
- (10) Determining whether the Affected Property is being used in a manner that is prohibited or restricted, or that may need to be prohibited or restricted under the Order; and

(11) Implementing, monitoring, maintaining, reporting on, and enforcing any land, water, or other resource use restrictions regarding the Affected Property.

50. **Best Efforts.** As used in this Section, “best efforts” means the efforts that a reasonable person in the position of Respondent would use so as to achieve the goal in a timely manner, including the cost of employing professional assistance and the payment of reasonable sums of money to secure access and/or use restriction agreements, as required by this Section. If, within 15 days after it is known access is required at a particular property, Respondent is unable to accomplish what is required through “best efforts” it shall notify EPA, and include a description of the steps taken to comply with the requirements. If EPA deems it appropriate, it may assist Respondent or take independent action in obtaining such access and/or use restrictions. EPA reserves the right to seek payment from Respondent for all costs, including cost of attorneys’ time, incurred by the United States in obtaining such access or agreements to restrict land, water, or other resource use.

51. **Notice to Successors-in-Title**

a. Respondent shall, within 15 days after the Effective Date, submit for EPA approval a notice to be filed regarding Affected Property owned by Respondent in the appropriate land records. The notice must: (1) include a proper legal description of the Affected Property; (2) provide notice to all successors-in-title that: (i) the Affected Property is part of, or related to, the Site; (ii) EPA has selected a removal action for the Site; and (iii) EPA has ordered potentially responsible parties to implement that removal action; and (3) identify the EPA docket number and Effective Date of this Order. Respondent shall record the notice within 10 days after EPA’s approval of the notice and submit to EPA, within 10 days thereafter, a certified copy of the recorded notice.

b. Respondent shall, prior to entering into a contract to Transfer its Affected Property, or 60 days prior to Transferring its Affected Property, whichever is earlier:

(1) Notify the proposed transferee that EPA has selected a removal action regarding the Site, that EPA has ordered potentially responsible parties to implement such removal action, (identifying the EPA docket number and the Effective Date of this Order); and

(2) Notify EPA and the applicable State of the name and address of the proposed transferee and provide EPA and the applicable State with a copy of the above notice that it provided to the proposed transferee.

52. In the event of any Transfer of the Affected Property, unless EPA otherwise consents in writing, Respondent shall continue to comply with its obligations under this Order, including its obligation to secure access and ensure compliance with any land, water, or other resource use restrictions regarding the Affected Property.

53. Notwithstanding any provision of this Order, EPA and the States retain all of their access authorities and rights, as well as all of their rights to require land, water, or other resource

use restrictions, including enforcement authorities related thereto under CERCLA, RCRA, and any other applicable statute or regulations.

XIV. ACCESS TO INFORMATION

54. Respondent shall provide to EPA and the States, upon request, copies of all records, reports, documents, and other information (including records, reports, documents, and other information in electronic form) (hereinafter referred to as “Records”) within Respondent’s possession or control or that of its contractors or agents relating to activities at the Site or to the implementation of this Order, including, but not limited to, sampling, analysis, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic routing, correspondence, or other documents or information regarding the Work. Respondent shall also make available to EPA and the States, for purposes of investigation, information gathering, or testimony, their employees, agents, or representatives with knowledge of relevant facts concerning the performance of the Work.

55. Privileged and Protected Claims

a. Respondent may assert that all or part of a Record requested by EPA or the States is privileged or protected as provided under federal law, in lieu of providing the Record, provided Respondent complies with Paragraph 55.b, and except as provided in Paragraph 55.c.

b. If Respondent asserts a claim of privilege or protection, it shall provide EPA and the States with the following information regarding such Record: its title; its date; the name, title, affiliation (e.g., company or firm), and address of the author, of each addressee, and of each recipient; a description of the Record’s contents; and the privilege or protection asserted. If a claim of privilege or protection applies only to a portion of a Record, Respondent shall provide the Record to EPA and the States in redacted form to mask the privileged or protected portion only. Respondent shall retain all Records that it claims to be privileged or protected until EPA and the States or a court determines that such Record is privileged or protected.

c. Respondent may make no claim of privilege or protection regarding: (1) any data regarding the Site, including, but not limited to, all sampling, analytical, monitoring, hydrogeologic, scientific, chemical, radiological, or engineering data, or the portion of any other Record that evidences conditions at or around the Site; or (2) the portion of any Record that Respondent is required to create or generate pursuant to this Order.

56. **Business Confidential Claims.** Respondent may assert that all or part of a Record provided to EPA and the States under this Section or Section XV (Retention of Records) is business confidential to the extent permitted by and in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7), and 40 C.F.R. § 2.203(b). Respondent shall segregate and clearly identify all Records or parts thereof submitted under this UAO for which Respondent asserts business confidentiality claims. Records that Respondent claims to be confidential business information will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no claim of confidentiality accompanies Records when they are submitted to EPA and the States, or if EPA has notified Respondent that the Records are not confidential under the standards of

Section 104(e)(7) of CERCLA or 40 C.F.R. Part 2, Subpart B, the public may be given access to such Records without further notice to Respondent.

57. Notwithstanding any provision of this Order, EPA and the States retain all of their information gathering and inspection authorities and rights, including enforcement actions related thereto, under CERCLA, RCRA, and any other applicable statutes or regulations.

XV. RETENTION OF RECORDS

58. During the pendency of this Order and for a minimum of 10 years after Respondent's receipt of EPA's notification pursuant to Section XXVII (Notice of Completion of Work), Respondent shall preserve and retain all non-identical copies of Records (including Records in electronic form) now in its possession or control, or that come into its possession or control, that relate in any manner to its liability under CERCLA with respect to the Site, provided, however, that Respondent, as potentially liable as an owner or operator of the Site or part of the Site, must retain, in addition, all Records that relate to the liability of any other person under CERCLA with respect to the Site. Respondent must also retain, and instruct its contractors and agents to preserve, for the same period of time specified above, all non-identical copies of the last draft or final version of any Records (including Records in electronic form) now in its possession or control or that come into its possession or control that relate in any manner to the performance of the Work, provided, however, that Respondent (and its contractors and agents) must retain, in addition, copies of all data generated during performance of the Work and not contained in the aforementioned Records required to be retained. Each of the above record retention requirements shall apply regardless of any corporate retention policy to the contrary.

59. At the conclusion of this document retention period, Respondent shall notify EPA and the States at least 90 days prior to the destruction of any such Records, and, upon request by EPA or the States, and except as provided in Paragraph 55, Respondent shall deliver any such Records to EPA or the States.

60. Within 5 days after the Effective Date, Respondent shall submit a written certification to the OSCs that, to the best of its knowledge and belief, after thorough inquiry, it has not altered, mutilated, discarded, destroyed, or otherwise disposed of any Records (other than identical copies) relating to its potential liability regarding the Site since notification of its potential liability by the United States or the States, and that it has fully complied with any and all EPA or State requests for information regarding the Site pursuant to Sections 104(e) and 122(e) of CERCLA, 42 U.S.C. §§ 9604(e) and 9622(e), and Section 3007 of RCRA, 42 U.S.C. § 6927, or state law. If Respondent is unable to so certify, Respondent shall submit a modified certification that explains in detail why it is unable to certify in full with regard to all Records.

XVI. COMPLIANCE WITH OTHER LAWS

61. Nothing in this Order limits Respondent's obligations to comply with the requirements of all applicable state and federal laws and regulations, except as provided in Section 121(e) of CERCLA, 42 U.S.C. § 9621(e), and 40 C.F.R. §§ 300.400(e) and 300.415(j). In accordance with 40 C.F.R. § 300.415(j), all on-site actions required pursuant to this Order shall, to the extent practicable, as determined by EPA, considering the exigencies of the situation, attain

applicable or relevant and appropriate requirements (ARARs) under federal environmental or state environmental or facility siting laws.

62. No local, state, or federal permit shall be required for any portion of the Work conducted entirely on-site (i.e., within the areal extent of contamination or in very close proximity to the contamination and necessary for implementation of the Work), including studies, if the action is selected and carried out in compliance with Section 121 of CERCLA, 42 U.S.C. § 9621. Where any portion of the Work that is not on-site requires a federal or state permit or approval, Respondent shall submit timely and complete applications and take all other actions necessary to obtain and to comply with all such permits or approvals. This Order is not, and shall not be construed to be, a permit issued pursuant to any federal or state statute or regulation.

XVII. EMERGENCY RESPONSE AND NOTIFICATION OF RELEASES

63. **Emergency Response.** If any event occurs during performance of the Work that causes or threatens to cause a release of any Waste Material on, at, or from the Site that either constitutes an emergency situation or that may present an immediate threat to public health or welfare or the environment, Respondent shall immediately take all appropriate action to prevent, abate, or minimize such release or threat of release. Respondent shall take these actions in accordance with all applicable provisions of this Order, including, but not limited to, the Health and Safety Plan. Respondent shall also immediately notify the OSCs or, in the event of his/her unavailability, the Regional Duty Officer for Region 5 (at 312/353-2318) and Region 3 (at 215/814-3255) of the incident or Site conditions. In the event that Respondent fails to take appropriate response action as required by this Paragraph, and EPA takes such action instead, EPA reserves the right to pursue cost recovery.

64. **Release Reporting.** Upon the occurrence of any event during performance of the Work that Respondent is required to report pursuant to Section 103 of CERCLA, 42 U.S.C. § 9603, or Section 304 of the Emergency Planning and Community Right-To-Know Act (EPCRA), 42 U.S.C. § 11004, Respondent shall immediately orally notify an OSC, or, in the event of his/her unavailability, the Regional Duty Officer at Region 5 (at 312/353-2318) and Region 3 (at 215/814-3255) and the National Response Center at (800) 424-8802. This reporting requirement is in addition to, and not in lieu of, the reporting required by CERCLA §§ 103 and 111(g), or EPCRA § 304.

65. For any event covered under this Section, Respondent shall submit a written report to EPA within 7 days after the onset of such event, setting forth the action or event that occurred and the measures taken, and to be taken, to mitigate any release or threat of release or endangerment caused or threatened by the release and to prevent the reoccurrence of such a release or threat of release.

XVIII. PAYMENT OF RESPONSE COSTS

66. Upon EPA's written demand, Respondent shall pay EPA all Response Costs incurred or to be incurred in connection with this Order. On a periodic basis, EPA Regions 3 and 5 will send Respondent bills requiring payment of all Response Costs incurred by the United

States with respect to this Order that includes an Itemized Cost Summary, which includes direct and indirect costs incurred by EPA, its contractors, and the Department of Justice.

Respondent shall make all payments within 30 days after receipt of each written demand requiring payment.

Fedwire EFT: Federal Reserve Bank of New York
ABA: 021030004
Account: 68010727
SWIFT address: FRNYUS33
Field Tag 4200: D 68010727 Environmental Protection Agency

67. At the time of payment, Respondent shall send notice that payment has been made to dollhopf.ralph@epa.gov, kelly.jack@epa.gov, garypie.catherine@epa.gov, and dixit.naeha@epa.gov, and to the EPA Cincinnati Finance Office by email at cinwd_acctsreceivable@epa.gov, or by mail to:

EPA Cincinnati Finance Office
26 W. Martin Luther King Drive
Cincinnati, Ohio 45268

Such notice shall reference Site/Spill ID Number C5XR and EPA docket number for this action.

68. In the event that the payments for Response Costs are not made within 30 days after Respondent's receipt of a written demand requiring payment, Respondent shall pay Interest on the unpaid balance. The Interest on Response Costs shall begin to accrue on the date of the written demand and shall continue to accrue until the date of payment. Payments of Interest made under this Paragraph shall be in addition to such other remedies or sanctions available to the United States by virtue of Respondent's failure to make timely payments under this Section. Respondent shall make all payments required by this Paragraph in the manner described in Paragraphs 66 and 67.

XIX. ENFORCEMENT/WORK TAKEOVER

69. Any willful violation, or failure or refusal to comply with any provision of this Order may subject Respondent to civil penalties up to the maximum amount authorized by law. CERCLA § 106(b)(1), 42 U.S.C. § 9606(b)(1). As of the date of issuance of this Order, the statutory maximum amount is \$67,544 per violation per day. This maximum amount may increase in the future, as EPA amends its civil penalty amounts through rulemaking pursuant to the 1990 Federal Civil Penalties Inflation Adjustment Act (Public Law 101-410, codified at 28 U.S.C. § 2461), as amended by the 2015 Federal Civil Penalties Inflation Adjustment Act Improvement Act (Section 701 of Public Law 114-74). The maximum amount to be applied to this violation will be set as the most recent maximum amount set forth in 40 C.F.R. section 19.4 as of the date that the U.S. District Court assesses any such penalty. In the event of such willful violation, or failure or refusal to comply, EPA may unilaterally carry out the actions required by this Order, pursuant to Section 104 of CERCLA, 42 U.S.C. § 9604, and/or may seek judicial enforcement of this Order pursuant to Section 106 of CERCLA, 42 U.S.C. § 9606. In addition, nothing in this

Order shall limit EPA's authority under Section XXIII (Financial Assurance). Respondent may also be subject to punitive damages in an amount up to three times the amount of any cost incurred by the United States as a result of such failure to comply, as provided in Section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3).

XX. RESERVATIONS OF RIGHTS BY EPA

70. Nothing in this Order shall limit the power and authority of EPA or the United States to take, direct, or order all actions necessary to protect public health, welfare, or the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances, pollutants, or contaminants, or hazardous or solid waste on, at, or from the Site. Further, nothing in this Order shall prevent EPA from seeking legal or equitable relief to enforce the terms of this Order, from taking other legal or equitable action as it deems appropriate and necessary, or from requiring Respondent in the future to perform additional activities pursuant to CERCLA or any other applicable law. EPA reserves the right to bring an action against Respondent under Section 107 of CERCLA, 42 U.S.C. § 9607, for recovery of any response costs incurred by the United States related to this Order or the Site and not paid by Respondent.

XXI. OTHER CLAIMS

71. By issuance of this Order, the United States and EPA assume no liability for injuries or damages to persons or property resulting from any acts or omissions of Respondent. The United States or EPA shall not be deemed a party to any contract entered into by Respondent or its directors, officers, employees, agents, successors, representatives, assigns, contractors, or consultants in carrying out actions pursuant to this Order.

72. Nothing in this Order constitutes a satisfaction of or release from any claim or cause of action against Respondent or any person not a party to this Order, for any liability such person may have under CERCLA, other statutes, or common law, including but not limited to any claims of the United States under Sections 106 and 107 of CERCLA, 42 U.S.C. §§ 9606 and 9607.

73. Nothing in this Order shall be deemed to constitute preauthorization of a claim within the meaning of Section 111(a)(2) of CERCLA, 42 U.S.C. § 9611(a)(2), or 40 C.F.R. § 300.700(d).

74. No action or decision by EPA pursuant to this Order shall give rise to any right to judicial review, except as set forth in Section 113(h) of CERCLA, 42 U.S.C. § 9613(h).

XXII. INSURANCE

75. No later than 5 days before commencing any on-site Work, Respondent shall secure, and shall maintain for the duration of this Order, commercial general liability with limits of liability of \$1 million per occurrence, automobile liability insurance with limits of liability of \$1 million per accident, and umbrella liability insurance with limits of liability of \$5 million in excess of the required commercial general liability and automobile liability limits, naming EPA as an additional insured with respect to all liability arising out of the activities performed by or on behalf of Respondent pursuant to this Order. Within the same time period, Respondent shall

provide EPA with certificates of such insurance and a copy of each insurance policy. Respondent shall submit such certificates and copies of policies each year on the anniversary of the Effective Date. In addition, for the duration of the Order, Respondent shall satisfy, or shall ensure that its contractors or subcontractors satisfy, all applicable laws and regulations regarding the provision of worker's compensation insurance for all persons performing Work on behalf of Respondent in furtherance of this Order. If Respondent demonstrates by evidence satisfactory to EPA that any contractor or subcontractor maintains insurance equivalent to that described above, or insurance covering some or all of the same risks but in a lesser amount, then, with respect to that contractor or subcontractor, Respondent need provide only that portion of the insurance described above which is not maintained by such contractor or subcontractor. Respondent shall ensure that all submittals to EPA under this Paragraph identify the East Palestine Train Derailment Site, East Palestine, Ohio and the EPA docket number for this action.

XXIII. FINANCIAL ASSURANCE

76. In order to ensure completion of the Work, Respondent shall secure financial assurance, within 30 days of receiving an initial estimated cost of work ("Estimated Cost of the Work") from EPA, in an amount equal to the Estimated Cost of the Work. The financial assurance must be one or more of the mechanisms listed below, in a form substantially identical to the relevant sample documents available from EPA or under the "Financial Assurance - Orders" category on the Cleanup Enforcement Model Language and Sample Documents Database at <https://cfpub.epa.gov/compliance/models/>, and satisfactory to EPA. Respondent may use multiple mechanisms if they are limited to trust funds, surety bonds guaranteeing payment, and/or letters of credit.

a. A trust fund: (1) established to ensure that funds will be available as and when needed for performance of the Work; (2) administered by a trustee that has the authority to act as a trustee and whose trust operations are regulated and examined by a federal or state agency; and (3) governed by an agreement that requires the trustee to make payments from the fund only when the EPA Region 5 Superfund & Emergency Response Division Director advises the trustee in writing that: (i) payments are necessary to fulfill the Respondent's obligations under the Order; or (ii) funds held in trust are in excess of the funds that are necessary to complete the performance of Work in accordance with this Order;

b. A surety bond, issued by a surety company among those listed as acceptable sureties on federal bonds as set forth in Circular 570 of the U.S. Department of the Treasury, guaranteeing payment or performance in accordance with Paragraph 82 (Access to Financial Assurance);

c. An irrevocable letter of credit, issued by an entity that has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a federal or state agency, guaranteeing payment in accordance with Paragraph 82 (Access to Financial Assurance);

d. A demonstration by a Respondent that it meets the relevant financial test criteria of Paragraph 79; or

e. A guarantee to fund or perform the Work executed by a company (1) that is a direct or indirect parent company of a Respondent or has a “substantial business relationship” (as defined in 40 C.F.R. § 264.141(h)) with a Respondent; and (2) can demonstrate to EPA’s satisfaction that it meets the financial test criteria of Paragraph 79.

77. **Standby Trust.** If Respondent seeks to establish financial assurance by using a surety bond, a letter of credit, or a corporate guarantee, Respondent shall at the same time establish and thereafter maintain a standby trust fund, which must meet the requirements specified in Paragraph 76.a, and into which payments from the other financial assurance mechanism can be deposited if the financial assurance provider is directed to do so by EPA pursuant to Paragraph 82 (Access to Financial Assurance). An originally signed duplicate of the standby trust agreement must be submitted, with the other financial mechanism, to EPA in accordance with Paragraph 78. Until the standby trust fund is funded pursuant to Paragraph 82 (Access to Financial Assurance), neither payments into the standby trust fund nor annual valuations are required.

78. Within 30 days after receiving the Estimated Cost of the Work from EPA, Respondent shall submit to EPA proposed financial assurance mechanisms in draft form in accordance with Paragraph 76 for EPA’s review. Within 30 days after EPA’s approval of the form and substance of Respondent’s financial assurance, Respondent shall secure all executed and/or otherwise finalized mechanisms or other documents consistent with the EPA-approved form of financial assurance and shall submit such mechanisms and documents to the EPA regional attorneys: garypie.catherine@epa.gov and dixit.naecha@epa.gov.

79. If Respondent seeks to provide financial assurance by means of a demonstration or guarantee under Paragraph 76.d or 76.e, then Respondent must within 30 days:

a. Demonstrate that:

(1) the Respondent or guarantor has:

- i. Two of the following three ratios: a ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion, and amortization to total liabilities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5; and
- ii. Net working capital and tangible net worth each at least six times the sum of the Estimated Cost of the Work and the amounts, if any, of other federal, state, or tribal environmental obligations financially assured through the use of a financial test or guarantee; and
- iii. Tangible net worth of at least \$10 million; and
- iv. Assets located in the United States amounting to at least 90 percent of total assets or at least six times the sum of the Estimated Cost of the Work and the amounts, if any, of other federal, state, or tribal environmental obligations

financially assured through the use of a financial test or guarantee; or

(2) The Respondent or guarantor has:

- i. A current rating for its senior unsecured debt of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A or Baa as issued by Moody's; and
- ii. Tangible net worth at least six times the sum of the Estimated Cost of the Work and the amounts, if any, of other federal, state, or tribal environmental obligations financially assured through the use of a financial test or guarantee; and
- iii. Tangible net worth of at least \$10 million; and
- iv. Assets located in the United States amounting to at least 90 percent of total assets or at least six times the sum of the Estimated Cost of the Work and the amounts, if any, of other federal, state, or tribal environmental obligations financially assured through the use of a financial test or guarantee; and

b. Submit to EPA for the Respondent or guarantor: (1) a copy of an independent certified public accountant's report of the entity's financial statements for the latest completed fiscal year, which must not express an adverse opinion or disclaimer of opinion; and (2) a letter from its chief financial officer and a report from an independent certified public accountant substantially identical to the sample letter and reports available from EPA or under the "Financial Assurance – Orders" subject list category on the Cleanup Enforcement Model Language and Sample Documents Database at <https://cfpub.epa.gov/compliance/models/>.

80. If Respondent provides financial assurance by means of a demonstration or guarantee under Paragraph 76.d or 76.e, Respondent must also:

a. Annually resubmit the documents described in Paragraph 79.b within 90 days after the close of the Respondent's or guarantor's fiscal year;

b. Notify EPA within 30 days after the Respondent or guarantor determines that it no longer satisfies the relevant financial test criteria and requirements set forth in this Section; and

c. Provide to EPA, within 30 days of EPA's request, reports of the financial condition of the Respondent or guarantor in addition to those specified in Paragraph 79.b; EPA may make such a request at any time based on a belief that the Respondent or guarantor may no longer meet the financial test requirements of this Section.

81. Respondent shall diligently monitor the adequacy of the financial assurance. If Respondent becomes aware of any information indicating that the financial assurance provided

under this Section is inadequate or otherwise no longer satisfies the requirements of this Section, Respondent shall notify EPA of such information within 30 days. If EPA determines that the financial assurance provided under this Section is inadequate or otherwise no longer satisfies the requirements of this Section, EPA will notify the Respondent of such determination. Respondent shall, within 30 days after notifying EPA or receiving notice from EPA under this Paragraph, secure and submit to EPA for approval a proposal for a revised or alternative financial assurance mechanism that satisfies the requirements of this Section. Respondent shall follow the procedures of Paragraph 83 in seeking approval of, and submitting documentation for, the revised or alternative financial assurance mechanism. Respondent's inability to secure financial assurance in accordance with this Section does not excuse performance of any other obligation under this Order.

82. Access to Financial Assurance

a. If EPA determines that Respondent (1) has ceased implementation of any portion of the Work, (2) is seriously or repeatedly deficient or late in its performance of the Work, or (3) is implementing the Work in a manner that may cause an endangerment to human health or the environment, EPA may issue a written notice ("Performance Failure Notice") to both Respondent and the financial assurance provider regarding the Respondent's failure to perform. Any Performance Failure Notice issued by EPA will specify the grounds upon which such notice was issued and will provide Respondent a period of 10 days within which to remedy the circumstances giving rise to EPA's issuance of such notice. If, after expiration of the 10-day period specified in this Paragraph, Respondent has not remedied to EPA's satisfaction the circumstances giving rise to EPA's issuance of the relevant Performance Failure Notice, then, in accordance with any applicable financial assurance mechanism, EPA may at any time thereafter direct the financial assurance provider to immediately: (i) deposit any funds assured pursuant to this Section into the standby trust fund; or (ii) arrange for performance of the Work in accordance with this Order.

b. If EPA is notified by the provider of a financial assurance mechanism that it intends to cancel the mechanism, and the Respondent fails to provide an alternative financial assurance mechanism in accordance with this Section at least 30 days prior to the cancellation date, EPA may, prior to cancellation, direct the financial assurance provider to deposit any funds guaranteed under such mechanism into the standby trust fund for use consistent with this Section.

83. Modification of Amount, Form, or Terms of Financial Assurance. Respondent may submit, on any anniversary of the Effective Date or following Respondent's request for, and EPA's approval of, another date, a request to reduce the amount, or change the form or terms, of the financial assurance mechanism. Any such request must be submitted to the EPA individual(s) referenced in Paragraph 78, and must include an estimate of the cost of the remaining Work, an explanation of the bases for the cost calculation, a description of the proposed changes, if any, to the form or terms of the financial assurance, and any newly proposed financial assurance documentation in accordance with the requirements of Paragraphs 76 and 77 (Standby Trust). EPA will notify Respondent of its decision to approve or disapprove a requested reduction or change. Respondent may reduce the amount or change the form or terms of the financial assurance mechanism only in accordance with EPA's approval. Within 30 days after receipt of

EPA's approval of the requested modifications pursuant to this Paragraph, Respondent shall submit to the EPA individual(s) referenced in Paragraph 78 all executed and/or otherwise finalized documentation relating to the amended, reduced, or alternative financial assurance mechanism. Upon EPA's approval, the Estimated Cost of the Work shall be deemed to be the estimate of the cost of the remaining Work in the approved proposal.

84. **Release, Cancellation, or Discontinuation of Financial Assurance.** Respondent may release, cancel, or discontinue any financial assurance provided under this Section only: (a) after receipt of documentation issued by EPA certifying completion of the Work; or (b) in accordance with EPA's written approval of such release, cancellation, or discontinuation.

XXIV. MODIFICATION

85. An OSC may make modifications to any plan or schedule in writing or by oral direction. Any oral modification will be memorialized in writing by EPA within 5 days, but shall have as its effective date the date of the OSC's oral direction. Any other requirements of this Order may be modified in writing by signature of the Division Directors (or their designees) of EPA Regions 3 and 5.

86. If Respondent seeks permission to deviate from any approved Work Plan or schedule, Respondent's Project Coordinator shall submit a written request to EPA for approval outlining the proposed modification and its basis. Respondent may not proceed with the requested deviation until receiving approval from the OSC pursuant to Paragraph 85.

87. No informal advice, guidance, suggestion, or comment by the OSC or other EPA representatives regarding reports, plans, specifications, schedules, or any other writing submitted by Respondent shall relieve Respondent of its obligation to obtain any formal approval required by this Order, or to comply with all requirements of this Order, unless it is formally modified.

XXV. DELAY IN PERFORMANCE

88. Respondent shall notify EPA of any delay or anticipated delay in performing any requirement of this Order. Such notification shall be made by telephone and email to the OSC within 48 hours after Respondent first knew or should have known that a delay might occur. Respondent shall adopt all reasonable measures to avoid or minimize any such delay. Within 7 days after notifying EPA by telephone and email, Respondent shall provide to EPA written notification fully describing the nature of the delay, the anticipated duration of the delay, any justification for the delay, all actions taken or to be taken to prevent or minimize the delay or the effect of the delay, a schedule for implementation of any measures to be taken to mitigate the effect of the delay, and any reason why Respondent should not be held strictly accountable for failing to comply with any relevant requirements of this Order. Increased costs or expenses associated with implementation of the activities called for in this Order is not a justification for any delay in performance.

89. Any delay in performance of this Order that, in EPA's judgment, is not properly justified by Respondent under the terms of Paragraph 88 shall be considered a violation of this Order. Any delay in performance of this Order shall not affect Respondent's obligations to fully perform all obligations under the terms and conditions of this Order.

XXVI. ADDITIONAL REMOVAL ACTIONS

90. Unless otherwise stated by EPA, within 30 days of receipt of notice from EPA that additional removal actions are necessary to protect public health, welfare, or the environment, Respondent shall submit for approval by EPA a Work Plan for the additional removal actions. The Work Plan shall conform to the applicable requirements of Section XI (Work to Be Performed) of this Order. Upon EPA's approval of the Work Plan pursuant to Section XI, Respondent shall implement the Work Plan for additional removal actions in accordance with the provisions and schedule contained therein. This Section does not alter or diminish the OSC's authority to make oral modifications to any plan or schedule pursuant to Section XXIV (Modification).

XXVII. NOTICE OF COMPLETION OF WORK

91. When EPA determines, after EPA's review of the final report, that all Work has been fully performed in accordance with this Order, with the exception of any continuing obligations required by this Order, including, but not limited to, post-removal site controls, land, water, or other resource use restrictions, reimbursement of Response Costs, and Record Retention, EPA will provide written notice to Respondent. If EPA determines that any Work has not been completed in accordance with this Order, EPA will notify Respondent, provide a list of the deficiencies, and require that Respondent modify the Work Plan, if appropriate, in order to correct such deficiencies within 30 days after receipt of the EPA notice. The modified Work Plan shall include a schedule for correcting such deficiencies. Within 10 days after receipt of written approval of the modified Work Plan, Respondent shall implement the modified and approved Work Plan and shall submit a modified Final Report in accordance with the EPA notice. Failure by Respondent to implement the approved modified Work Plan shall be a violation of this Order.


XXVIII. ADMINISTRATIVE RECORD

92. EPA will establish an administrative record which contains the documents that form the basis for the issuance of this Order. No later than 60 days of the Effective Date of this Order, and it shall be made available for review on EPA's website (www.epa.gov) and by appointment on weekdays between the hours of 9 am and 5 pm at the EPA offices located at 77 West Jackson Blvd., Chicago, Illinois. To review the administrative record, please contact Todd Quesada, U.S. EPA Region 5 Superfund and Emergency Management Division Records Officer at 312-886-4465 to make an appointment.


XXIX. SEVERABILITY

93. If a court issues an order that invalidates any provision of this Order or finds that Respondent has sufficient cause not to comply with one or more provisions of this Order, Respondent shall remain bound to comply with all provisions of this Order not invalidated or determined to be subject to a sufficient cause defense by the court's order.

It is so ORDERED.

DOUGLAS
BY: **BALLOTTI**  Digitally signed by
DOUGLAS BALLOTTI
Date: 2023.02.21
09:11:01 -06'00'

[digitally signed and dated]
Douglas Ballotti
Superfund & Emergency Response Division, Region 5
U.S. Environmental Protection Agency

PAUL
BY: **LEONARD**  Digitally signed by PAUL
LEONARD
Date: 2023.02.21
11:11:15 -05'00'

[digitally signed and dated]
Paul Leonard
Superfund & Emergency Response Division, Region 3
U.S. Environmental Protection Agency

APPENDIX A - List of the Contents of the Rail Cars Which Derailed

LINE #	CAR ID	LOAD/MTY	CAR TYPE	COMMODITY	TANK CAR SPEC	UN ID	HAZ CLASS	Status of Car
23	ARSX 4145	LOADED	HOPPER	POLYPROPYLENE				Not in derailment pile
24	BRKX 66738	LOADED	HOPPER	POLYPROPYLENE				Not in derailment pile
25	GPLX 75465	LOADED	HOPPER	POLYETHYLENE				lading destroyed by fire
26	ECUX 860375	LOADED	HOPPER	POLYETHYLENE				lading destroyed by fire
27	UTLX 684543	EMPTY	TANK CAR	residue lube oil	DOT 117J100W			scrap pending C&P
28	TILX 402025	LOADED	TANK CAR	VINYL CHLORIDE, STABILIZED	DOT 105J300W	UN1086	2.1 (FLAMMABLE GAS)	car did not leak/cars vent product through the PRD and ignited/vent and burn performed
29	OCPX 80235	LOADED	TANK CAR	VINYL CHLORIDE, STABILIZED	DOT 105J300W	UN1086	2.1 (FLAMMABLE GAS)	car did not leak/cars vent product through the PRD and ignited/vent and burn performed
30	OCPX 80179	LOADED	TANK CAR	VINYL CHLORIDE, STABILIZED	DOT 105J300W	UN1086	2.1 (FLAMMABLE GAS)	car did not leak/cars vent product through the PRD and ignited/vent and burn performed
31	GATX 95098	LOADED	TANK CAR	VINYL CHLORIDE, STABILIZED	DOT 105J300W	UN1086	2.1 (FLAMMABLE GAS)	vent product through the PRD and ignited/vent and burn performed
32	RACX 51629	LOADED	TANK CAR	DIPROPYLENE GLYCOL	DOT 111A100W1			fire impingement/no signs of tank breach
33	LYBX 5191	LOADED	TANK CAR	PROPYLENE GLYCOL	DOT 117J100W			flame impingement, no tank breach found
34	RACX 51435	LOADED	TANK CAR	PROPYLENE GLYCOL	DOT 111A100W1			tank breached/lost most of load
35	UTLX 671772	LOADED	TANK CAR	DIETHYLENE GLYCOL	DOT 111A100W1			had small leak from BOV, unknown amount of product in car
36	SHPX 211226	LOADED	TANK CAR	COMBUSTIBLE LIQ., NOS (ETHYLENE GLYCOL MONOBUTYL ETHER)	DOT 111S100W1	NA1993	COMBUSTIBLE LIQUID	unknown status
37	TILX 331319	LOADED	HOPPER	SEMOLINA				in pile, destroyed by fire
38	DOWX 73168	LOADED	TANK CAR	COMBUSTIBLE LIQ., NOS (ETHYLHEXYL ACRYLATE)	DOT 111S100W1	NA1993	COMBUSTIBLE LIQUID	Car breached on head end/amount of product still in car pending
39	ROIX 57036	LOADED	HOPPER	POLYVINYL				burned
40	NCUX 40057	LOADED	HOPPER	POLYVINYL				actively burning
41	UTLX 100055	LOADED	TANK CAR	PETROLEUM LUBE OIL	DOT 111A100W1			double comp car/both breached/entire load lost
42	XOMX 110664	LOADED	TANK CAR	PETROLEUM LUBE OIL	211A100W1			tank breached/lost most of load
43	UTLX 684798	LOADED	TANK CAR	PETROLEUM LUBE OIL	DOT 117J100W			flame impinged, may have had a small leak/will be determined when car is off loaded
44	UTLX 671310	LOADED	TANK CAR	PETROLEUM LUBE OIL	DOT 111A100W1			flame impinged, small leak from top fittings, unknown amount left in tank
45	CERX 30072	LOADED	TANK CAR	POLYPROPYL GLYCOL	DOT 111A100W1			flame impinged, tank breached/ most of load lost
46	SHPX 211106	LOADED	TANK CAR	PROPYLENE GLYCOL	DOT 111S100W1			flame impinged, no signs of breach
47	NATX 231335	LOADED	TANK CAR	DIETHYLENE GLYCOL	DOT 111A100W1			flame impinged, tank breached/ load lost
48	UTLX 671913	LOADED	TANK CAR	DIETHYLENE GLYCOL	DOT 111A100W1			flame impinged, lost unknown amount at this time from damaged BOV
49	NATX 35844	LOADED	TANK CAR	ISOBUTYLENE	DOT 105J300W	UN1055	2.1 (FLAMMABLE GAS)	some flame impingement/no signs of breach
50	UTLX 205907	LOADED	TANK CAR	BUTYL ACRYLATES, STABILIZED	DOT 111A100W1	UN 2348	3 (FLAMMABLE LIQUID)	Head breach/lost entire load (spill& fire)
51	UTLX 661296	LOADED	TANK CAR	PETRO OIL, NEC	DOT 111A100W1			flame impinged, small leak from VRV stopped, car still loaded

52	COCX 287059	LOADED	TANK CAR	ADDITIVES, FUEL	DOT 111A100W1			flame impinged, no sign of breach
53	ROIX 59396	LOADED	HOPPER	POLYVINYL				involved in fire
54	ROIX 57782	LOADED	HOPPER	POLYVINYL				involved in fire
55	OCPX 80370	LOADED	TANK CAR	VINYL CHLORIDE, STABILIZED	DOT 105J300W	UN 1086	2.1 (FLAMMABLE GAS)	car did not leak/cars vent product through the PRD and ignited/vent and burn performed
56	TBOX 640019	LOADED	BOX CAR	BALLS, CTN, MEDCL				burning or has burned
57	BKTY 152621	LOADED	BOX CAR	SHEET STEEL				burning or has burned
58	LINX 7278	LOADED	BOX CAR	VEGETABLE, FROZEN				burning or has burned
59	DPRX 259013	EMPTY	TANK CAR	BENZENE	DOT 111A100W1	UN 1114	3 (FLAMMABLE LIQUID)	damaged, fire impinged/ no breach
60	DPRX 258671	EMPTY	TANK CAR	BENZENE	DOT 111A100W1	UN 1114	3 (FLAMMABLE LIQUID)	damaged, fire impinged/ no breach
61	XOMX 110236	LOADED	TANK CAR	PARAFFIN WAX	DOT 211A100W1			flame impingement/no signs of breach
62	ELTX 7458	LOADED	HOPPER	FLAKES, POWDER				burned, extinguished
63	ELTX 3421	LOADED	HOPPER	FLAKES, POWDER		b		in line, upright, impinged
64	NDYX 892049	LOADED	HOPPER	HYDRAULIC CEMENT				
65	TTGX 953815	LOADED	AUTORACK	AUTOS PASSENGER				
66	TBOX 889334	LOADED	BOX CAR	MALT LIQUORS				
67	NOKL 603412	LOADED	BOX CAR	MALT LIQUORS				
68	NS 472751	LOADED	BOX CAR	MALT LIQUORS				
69	TBOX 676291	LOADED	BOX CAR	MALT LIQUORS				
70	TBOX 670331	LOADED	BOX CAR	MALT LIQUORS				
71	TBOX 662599	LOADED	BOX CAR	MALT LIQUORS				
72	KCS 112405	LOADED	BOX CAR	MALT LIQUORS				
73	TBOX 666771	LOADED	BOX CAR	MALT LIQUORS				
74	TBOX 664264	LOADED	BOX CAR	MALT LIQUORS				

APPENDIX B - Consist (Manifest) Detailing the Volume of Materials in Each Rail Car

```
#####
#
#
#          EEEEEEE   DDDDDD
#          E           D       D
#          EEEEEEE   D       D
#          E           D       D
#          EEEEEEE   DDDDDD
#
#####
# This consist contains cars with excessive
# dimensions.  Check for proper clearance.
#
#####
```


**CARS SET

OUT**

SEQ INIT NUMBER L/E DEST/OFFJCT NXRD TON CONSIGNE S T C C TYPE TIME TRACK
LINE

ENG NS E04178 E 0000000 D127 NO WAYBILL
ENG NS E04224 L 216 0000000 D127 NO WAYBILL

EXCESSIVE DIMENSIONS.

001 OCPX 070524 L STONY PO PA NS 127 J-M MANU 2821141 C214 _____

IF BAD ORDERED NOTIFY SHIPPER

002 GATX 009166 E PAULSBOR NJ NS 50 PAULSBOR 4905752 T389 _____

ENDORSED AS HAZARDOUS MAT

1 CAR

* HAZARDOUS *

* MATERIALS *

RESIDUE: LAST CONTAINED
UN1075LIQUEFIED PETROLEUM GAS
2.1

EMERGENCY CONTACT:

CCN 7204

18004249300

HAZMAT STCC=4905752

ERG GUIDE NO. 115

TO/CONSIGNEE:

PAULSBORO REFINING COMPANY LLC
PAULSBORO NJ PANY LLC

FROM/SHIPPER:

TARGA TRANSPORT LLC
MONT BELVIEU TX

HM1 PIT GROUP 4 RESIDUE TANK CAR

RESIDUE FLAMMABLE GAS >MAY NOT BE NEXT TO ENGINE OR OCC

CAB<

003 TTPX 081589 L WHEATLAN PA NS 111 BI-STATE 3312653 F253 _____

004 TTPX 805391 L WHEATLAN PA NS 111 BI-STATE 3312653 F453 _____

005 TTPX 080902 L WHEATLAN PA NS 111 BI-STATE 3312653 F253 _____

006 TTPX 806356 L WHEATLAN PA NS 112 BI-STATE 3312653 F453 _____

007 TTZX 864660 L RICHLAND PA NS 127 RIGIDPLY 2421184 F483 _____

UNLOAD AS PLACARDED

008 GACX 015324 L CAMP HIL PA NS 141 ADM MILL 2041110 C614 _____

"EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"

009 NS 245167 E BAY RIDG NY NYA 33 EWG GLAS 3229924 C113 _____

010 TBOX 641071 L CARLISLE PA NS 115 CROWN IM 2082110 A606 _____

PLTF

011 CSOX 023642 E CONGO WV NS 39 ERGON WE 2911415 T106 _____

012 UTCX 046842 E MARCUS H PA NS 33 BRASKEM 2821139 C214 _____

VERIFY LIGHT CAR PLACEMENT NEAR HEAD END LOCOMOTIVE CONSIST

013 TILX 623413 L READING PA RBMN 131 PACTIV L 2821139 C214 _____

014 BRKX 062205 L READING PA RBMN 131 PACTIV L 2821139 C214 _____

015 GPLX 076170 L READING PA RBMN 108 MITSUBIS 2821142 C214 _____

016 GPLX 076158 L READING PA RBMN 110 MITSUBIS 2821142 C214 _____

017 GPLX 075450 L READING PA RBMN 112 MITSUBIS 2821142 C214 _____

018 MULX 053887 L READING PA RBMN 131 PACTIV L 2821139 C214 _____

019 TILX 624042 L READING PA RBMN 131 PACTIV L 2821139 C214 _____

020 BRKX 068611 L READING PA RBMN 131 PACTIV L 2821139 C214 _____

021 ARSX 004145 L READING PA RBMN 131 PACTIV L 2821139 C214 _____

022 BRKX 066738 L READING PA RBMN 131 PACTIV L 2821139 C214 _____

023 GPLX 075465 L READING PA RBMN 105 MITSUBIS 2821142 C214 _____

024 ECUX 860375 L BRIDGEPO NJ NS 115 NOVOLEX 2821142 C214 _____

025 UTLX 684543 E BAYONNE NJ NS 48 GORDON T 2911791 T178 _____

026 TILX 402025 L PEDRICKT NJ NS 131 OXY VINY 4905792 T907 _____

1 CAR

* HAZARDOUS *

* MATERIALS *

1 CAR 178300 LBS

UN1086

VINYL CHLORIDE,
STABILIZED
2.1
RQ (VINYL CHLORIDE)
TN=(VINYL CHLORIDE,
STABILIZED)
EMERGENCY CONTACT:
CONTRACT: 16186
8004249300
HAZMAT STCC=4905792
ERG GUIDE NO. 116

TO/CONSIGNEE:
OXY VINYLs LP
PEDRICKTOWN NJ

FROM/SHIPPER:
OXY VINYLs MILLER
LA PORTE TX

DIVISION 2.1 (FLAMMABLE GAS) >NO MORE THAN 2 CAR CUTS<
HM1 PIT GROUP 4 LOADED TANK CAR
HM1 PIT GROUP 4 OTHER CAR
IF BAD ORDERED NOTIFY SHIPPER
LOADED TANK CAR.

027 OCPX 080235 L PEDRICKT NJ NS 131 OXY VINY 4905792 T907 _____

* HAZARDOUS *
* MATERIALS *

1 CAR
1 CAR 177250 LBS
UN1086

VINYL CHLORIDE,
STABILIZED
2.1
RQ (VINYL CHLORIDE)
TN=(VINYL CHLORIDE,
STABILIZED)
EMERGENCY CONTACT:
CONTRACT: 16186
8004249300
HAZMAT STCC=4905792
ERG GUIDE NO. 116

TO/CONSIGNEE:
OXY VINYLs LP
PEDRICKTOWN NJ

FROM/SHIPPER:
OXY VINYLs MILLER
LA PORTE TX

DIVISION 2.1 (FLAMMABLE GAS) >NO MORE THAN 2 CAR CUTS<
HM1 PIT GROUP 4 LOADED TANK CAR
HM1 PIT GROUP 4 OTHER CAR
IF BAD ORDERED NOTIFY SHIPPER
LOADED TANK CAR.

028 OCPX 080179 L PEDRICKT NJ NS 131 OXY VINY 4905792 T907 _____

* HAZARDOUS *
* MATERIALS *

1 CAR
1 CAR 177600 LBS
UN1086
VINYL CHLORIDE,
STABILIZED
2.1
RQ (VINYL CHLORIDE)

TO/CONSIGNEE:
 OXY VINYLs LP
 PEDRICKTOWN NJ
 DIVISION 2.1 (FLAMMABLE GAS) >NO MORE THAN 2 CAR CUTS<
 HM1 PIT GROUP 4 LOADED TANK CAR
 HM1 PIT GROUP 4 OTHER CAR
 IF BAD ORDERED NOTIFY SHIPPER
 LOADED TANK CAR.

TN=(VINYL CHLORIDE,
 STABILIZED)
 EMERGENCY CONTACT:
 CONTRACT: 16186
 8004249300
 HAZMAT STCC=4905792
 ERG GUIDE NO. 116

FROM/SHIPPER:
 OXY VINYLs MILLER
 LA PORTE TX

029 GATX 095098 L PEDRICKT NJ NS 131 OXY VINY 4905792 T907 _____

 * HAZARDOUS *
 * MATERIALS *

 1 CAR
 1 CAR 178150 LBS
 UN1086
 VINYL CHLORIDE,
 STABILIZED
 2.1
 RQ (VINYL CHLORIDE)
 TN=(VINYL CHLORIDE,
 STABILIZED)

TO/CONSIGNEE:
 OXY VINYLs LP
 PEDRICKTOWN NJ
 DIVISION 2.1 (FLAMMABLE GAS) >NO MORE THAN 2 CAR CUTS<
 HM1 PIT GROUP 4 LOADED TANK CAR
 HM1 PIT GROUP 4 OTHER CAR
 IF BAD ORDERED NOTIFY SHIPPER
 LOADED TANK CAR.

FROM/SHIPPER:
 OXY VINYLs MILLER
 LA PORTE TX

030 RACX 051629 L BAYONNE NJ NS 131 LYONDELL 2818544 T106 _____

CASH PATRON-REMOVED
 LOADED TANK CAR.

031 LYBX 005191 L BAYONNE NJ NS 131 LYONDELL 2818556 T178 _____

CASH PATRON-REMOVED
 LOADED TANK CAR.

032 RACX 051435 L BAYONNE NJ NS 131 LYONDELL 2818556 T106 _____

CASH PATRON-REMOVED
 LOADED TANK CAR.

033 UTLX 671772 L THOROUGH NJ NS 127 COIM USA 2818542 T106 _____

LOADED TANK CAR.

034 SHPX 211226 L BAYONNE NJ NS 134 EQUISTAR 4915407 T207 _____

* HAZARDOUS *
* MATERIALS *

1 CAR
1 CAR 185750 LBS
NA1993
COMBUSTIBLE LIQUID,
N.O.S.
(ETHYLENE GLYCOL
MONOBUTYL ETHER)
COMBUSTIBLE LIQUID
PG III
TN=(COMBUSTIBLE LIQUID,
N.O.S.)
EMERGENCY CONTACT:
CCN13495
8004249300
HAZMAT STCC=4915407
ERG GUIDE NO. 128

TO/CONSIGNEE:

EQUISTAR CHEMICALS LP
BAYONNE NJ

FROM/SHIPPER:

EQUISTAR CHEMICALS BPO
PASADENA TX

"EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"
COMB LIQUID > LOADED TANK MAY NOT BE NEXT TO SHIFTABLE

LOAD.

COMB LIQUID > NO BUFFERS REQUIRED
HM1 PIT GROUP 5 LOADED TANK CAR

LOADED TANK CAR.

035 TILX 331319 L MILTON U PA NS 138 CONAGRA 2041125 C114 _____

"EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"

036 DOWX 073168 L MILL HAL PA NS 140 AVERY DE 4914108 T208 _____

ENDORSED AS HAZARDOUS MAT

* HAZARDOUS *
* MATERIALS *

1 CAR
1 CAR
NA1993
COMBUSTIBLE LIQUID,N.O.S.
(2-ETHYL HEXYL ACRYLATE)
COMBUSTIBLE LIQUID
PG III
EMERGENCY CONTACT:
UNION CARBIDE
CORPORATION
1-800-424-9300
HAZMAT STCC=4914108
ERG GUIDE NO. 128

TO/CONSIGNEE:

FROM/SHIPPER:

AVERY DENNISON CORPORATION		UNION CARBIDE CORP	
MILL HALL	PA TION	TAFT	LA
"EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"			
COMB LIQUID > LOADED TANK MAY NOT BE NEXT TO SHIFTABLE			

LOAD.

COMB LIQUID > NO BUFFERS REQUIRED
 HM1 PIT GROUP 5 LOADED TANK CAR
 LOADED TANK CAR.

037 ROIX 057036 L	STONY PO PA NS	128 J M EAGL 2821141 C214	_____	_____

038 NCUX 040057 L	NAZARETH PA NS	131 PRIME CO 2821141 C214	_____	_____

039 UTLX 100055 L	GIBBSTOW NJ NS	115 EXXONMOB 2911415 T106	_____	_____

LOADED TANK CAR.				
040 XOMX 110664 L	GIBBSTOW NJ NS	115 EXXONMOB 2911415 T108	_____	_____

LOADED TANK CAR.				
041 UTLX 684798 L	GIBBSTOW NJ NS	123 EXXONMOB 2911415 T178	_____	_____

LOADED TANK CAR.				
042 UTLX 671310 L	GIBBSTOW NJ NS	114 EXXONMOB 2911415 T107	_____	_____

LOADED TANK CAR.				
043 CERX 030072 L	CHAPMAN PA NS	141 CARPENTE 2818555 T107	_____	_____

"EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"				
LOADED TANK CAR.				
044 SHPX 211106 L	BAYONNE NJ NS	131 LYONDELL 2818556 T207	_____	_____

CASH PATRON-REMOVED				
LOADED TANK CAR.				
045 NATX 231335 L	THOROUGH NJ NS	128 COIM USA 2818542 T106	_____	_____

LOADED TANK CAR.				
046 UTLX 671913 L	THOROUGH NJ NS	127 COIM USA 2818542 T106	_____	_____

LOADED TANK CAR.				
047 NATX 035844 L	WEST ELI PA NS	127 SYNTHOME 4905748 T909	_____	_____

CASH PATRON-REMOVED				
*****		1	CAR	
*	HAZARDOUS	*		
*	MATERIALS	*	1 CAR 155642 LBS	
*****		UN1055		

ISOBUTYLENE
2.1
NON-ODORIZED
TN=(ISOBUTYLENE)
EMERGENCY CONTACT:
CCN13495
8004249300
HAZMAT STCC=4905748
ERG GUIDE NO. 115

TO/CONSIGNEE:

SYNTHOMER JEFFERSON HILLS LLC
WEST ELIZABETH PA LLS LLC

FROM/SHIPPER:

LYONDELL CHEMICAL

PASADENA TX

DIVISION 2.1 (FLAMMABLE GAS) >NO MORE THAN 2 CAR CUTS<
HM1 PIT GROUP 4 LOADED TANK CAR
HM1 PIT GROUP 4 OTHER CAR
LOADED TANK CAR.

048 UTLX 205907 L POTTSTOW PA NS 124 ARKEMA 4912215 T108 _____

* HAZARDOUS *
* MATERIALS *

1 CAR
1 TNK
UN2348
BUTYL ACRYLATES,
STABILIZED
3//PG III
EMERGENCY CONTACT:
ARKEMA
1-800-424-9300
HAZMAT STCC=4912215
ERG GUIDE NO. 129

TO/CONSIGNEE:

ARKEMA
POTTSTOWN

FROM/SHIPPER:

ARKEMA
PASADENA TX

CLASS 3 (FLAMMABLE LIQUID) >DANGEROUS<
HM1 PIT GROUP 4 LOADED TANK CAR
HM1 PIT GROUP 4 OTHER CAR
LOADED TANK CAR.

049 UTLX 661296 L FREEDOM PA NS 125 VALVOLIN 2911791 T107 _____

LOADED TANK CAR.

050 COCX 287059 L NEWELL WV NS 125 SHELL OI 2899885 T106 _____

LOADED TANK CAR.

051 ROIX 059396 L BURLINGT NJ NS 126 RIMTEC 2821141 C214 _____

052 ROIX 057782 L STONY PO PA NS 131 J M EAGL 2821141 C214 _____

053 OCPX 080370 L PEDRICKT NJ NS 129 OXY VINY 4905792 T907 _____

1 CAR

* HAZARDOUS *

* MATERIALS *

1 CAR 176100 LBS
UN1086
VINYL CHLORIDE,
STABILIZED
2.1
RQ (VINYL CHLORIDE)
TN=(VINYL CHLORIDE,
STABILIZED)
EMERGENCY CONTACT:
CONTRACT: 16186
8004249300
HAZMAT STCC=4905792
ERG GUIDE NO. 116

TO/CONSIGNEE:

OXY VINYLs LP
PEDRICKTOWN NJ

FROM/SHIPPER:

OXY VINYLs MILLER
LA PORTE TX

DIVISION 2.1 (FLAMMABLE GAS) >NO MORE THAN 2 CAR CUTS<
HM1 PIT GROUP 4 LOADED TANK CAR
HM1 PIT GROUP 4 OTHER CAR
IF BAD ORDERED NOTIFY SHIPPER
LOADED TANK CAR.

054 TBOX 640019 L LEWISTOW PA NS 140 FIRST QU 3842174 A606 _____

PLTF
"EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"

055 BKTY 152621 L WELLSVIL OH NS 87 WELLSVIL 3312332 A402 _____

CASH PATRON-NS RECEIVED R

056 LINX 007278 L CHAPMAN PA NS 132 LINEAGE 2037361 R660 _____

PLTF
"EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"
FUEL AND TEMPERATURE MUST BE CHECKED
MECHANICAL REFRIGERATOR CAR.

057 DPRX 259013 E REYBOLD DE NS 41 DELAWARE 4908110 T107 _____

ENDORSED AS HAZARDOUS MAT

* HAZARDOUS *

* MATERIALS *

1 CAR
RESIDUE: LAST CONTAINED
UN1114
BENZENE
(BENZOL)
3//PG II
RQ (BENZENE)
EMERGENCY CONTACT:
SASOL CHEMICALS USA
18004249300

HAZMAT STCC=4908110
ERG GUIDE NO. 130

TO/CONSIGNEE:

FROM/SHIPPER:

DELAWARE CITY REFINING SASOL CHEMICALS KCS
 DELAWARE CITY DE WESTLAKE LA
 CLASS 3 (FLAMMABLE LIQUID) >DANGEROUS<
 HM1 PIT GROUP 4 RESIDUE TANK CAR

058 DPRX 258671 E REYBOLD DE NS 41 DELAWARE 4908110 T107 _____

_____ ENDORSED AS HAZARDOUS MAT

 * HAZARDOUS * 1 CAR
 * MATERIALS * RESIDUE: LAST CONTAINED

 UN1114
 BENZENE
 (BENZOL)
 3//PG II
 RQ (BENZENE)
 EMERGENCY CONTACT:
 SASOL CHEMICALS USA
 18004249300
 HAZMAT STCC=4908110
 ERG GUIDE NO. 130

TO/CONSIGNEE: FROM/SHIPPER:
 DELAWARE CITY REFINING SASOL CHEMICALS KCS
 DELAWARE CITY DE WESTLAKE LA
 CLASS 3 (FLAMMABLE LIQUID) >DANGEROUS<
 HM1 PIT GROUP 4 RESIDUE TANK CAR

059 XOMX 110236 L UHLERS PA NS 121 CRAYOLA 2911990 T108 _____

_____ LOADED TANK CAR.

060 ELTX 007458 L EIGHTY F PA NS 136 WASHINGT 2821163 C214 _____

_____ "EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"

061 ELTX 003421 L CARLISLE PA NS 131 CARLISLE 2821163 C214 _____

062 NDYX 892049 L BALTIMOR MD NS 140 CTS CEME 3241115 C612 _____

_____ "EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"

063 TTGX 953815 L DOREMUS NJ NS 64 FORD MOT 3711120 V978 _____

_____ 85 FT OR LONGER RAILCAR
 MULTI LEVEL - SYSTEM TIMETABLE INSTRUCTION SP-1 APPLIES

064 TBOX 889334 L CARLISLE PA NS 126 CROWN IM 2082110 A606 _____

_____ PLTF

065 NOKL 603412 L CARLISLE PA NS 126 CROWN IM 2082110 A606 _____

_____ PLTF

066 NS 472751 L CARLISLE PA NS 101 CROWN IM 2082110 A606 _____

PLTF

067 TBOX 676291 L CARLISLE PA NS 103 CROWN IM 2082110 A606 _____

PLTF

068 TBOX 670331 L CARLISLE PA NS 116 CROWN IM 2082110 A606 _____

PLTF

069 TBOX 662599 L CARLISLE PA NS 123 CROWN IM 2082110 A606 _____

PLTF

070 KCS 112405 L CARLISLE PA NS 120 CROWN IM 2082110 B637 _____

PLTF

071 TBOX 666771 L CARLISLE PA NS 100 CROWN IM 2082110 A606 _____

PLTF

072 TBOX 664264 L CARLISLE PA NS 115 CROWN IM 2082110 A606 _____

PLTF

073 TBOX 642155 L CARLISLE PA NS 116 CROWN IM 2082110 A606 _____

PLTF

074 TBOX 643155 L CARLISLE PA NS 120 CROWN IM 2082110 A606 _____

PLTF

075 TBOX 630049 L CARLISLE PA NS 120 CROWN IM 2082110 A606 _____

PLTF

076 BKTY 151113 L SUFFERN NY NS 94 CROWN IM 2082110 A402 _____

077 TBOX 672287 L CARLISLE PA NS 100 CROWN IM 2085110 A606 _____

PLTF

078 TBOX 643036 L CARLISLE PA NS 116 CROWN IM 2082110 A606 _____

PLTF

079 TTZX 862546 L BETHLEHE PA LVRB 111 DO IT BE 2421184 F483 _____

080 NAHX 320459 L FAIRLAWN NJ NS 125 A ZEREGA 2041125 C614 _____

081	TTGX	696500	L	BALTIMOR MD NS	69	GENERAL	3711120	V915	_____	_____
<hr/> <div style="margin-left: 150px;"> 85 FT OR LONGER RAILCAR MULTI LEVEL - SYSTEM TIMETABLE INSTRUCTION SP-1 APPLIES </div>										
082	TTGX	851756	L	BALTIMOR MD NS	79	GENERAL	3711120	V978	_____	_____
<hr/> <div style="margin-left: 150px;"> 85 FT OR LONGER RAILCAR MULTI LEVEL - SYSTEM TIMETABLE INSTRUCTION SP-1 APPLIES </div>										
083	TTGX	981950	L	BALTIMOR MD NS	74	GENERAL	3711120	V971	_____	_____
<hr/> <div style="margin-left: 150px;"> 85 FT OR LONGER RAILCAR MULTI LEVEL - SYSTEM TIMETABLE INSTRUCTION SP-1 APPLIES </div>										
084	LRS	137205	L	CARLISLE PA NS	127	CROWN IM	2082110	B637	_____	_____
<hr/> <div style="margin-left: 150px;">PLTF</div>										
085	NS	469567	L	CARLISLE PA NS	118	CROWN IM	2082110	A606	_____	_____
<hr/>										
086	TBOX	641883	L	CARLISLE PA NS	116	CROWN IM	2082110	A606	_____	_____
<hr/> <div style="margin-left: 150px;">PLTF</div>										
087	TBOX	675515	L	CARLISLE PA NS	120	CROWN IM	2082110	A606	_____	_____
<hr/> <div style="margin-left: 150px;">PLTF</div>										
088	LRS	002512	L	READING PA RBMN	99	INTERNAT	2631117	A406	_____	_____
<hr/> <div style="margin-left: 150px;">IF BAD ORDERED NOTIFY SHIPPER</div>										
089	TBOX	672773	L	READING PA RBMN	138	KARCHNER	2631117	A606	_____	_____
<hr/> <div style="margin-left: 150px;"> PLTF "EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE" IF BAD ORDERED NOTIFY SHIPPER </div>										
090	BKTY	152854	L	LANCASTE PA NS	88	INTERNAT	2631117	A402	_____	_____
<hr/> <div style="margin-left: 150px;">IF BAD ORDERED NOTIFY SHIPPER</div>										
091	UTLX	667639	L	WORTON MD NS	130	EASTMAN	4914223	T107	_____	_____
<hr/> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> ***** * HAZARDOUS * * MATERIALS * ***** </div> <div style="width: 50%;"> 1 CAR 1 CAR 181250 LBS NA1993 COMBUSTIBLE LIQUID, N.O.S. (ETHYLENE GLYCOL MONOBUTYL ETHER) COMBUSTIBLE LIQUID PG III </div> </div>										

TN=EASTMAN(TM) EB SOLVENT
 , BULK
 FLASHPOINT TEMP.= 62 C
 EMERGENCY CONTACT:
 EASTMAN CHEMICAL
 CCN#7321
 8004249300
 HAZMAT STCC=4914223
 ERG GUIDE NO. 128

TO/CONSIGNEE:

EASTMAN CHEMICAL
 CHESTERTOWN MD

FROM/SHIPPER:

EASTMAN CHEMICAL
 LONGVIEW TX

LOAD. COMB LIQUID > LOADED TANK MAY NOT BE NEXT TO SHIFTABLE

COMB LIQUID > NO BUFFERS REQUIRED
 HM1 PIT GROUP 5 LOADED TANK CAR
 LOADED TANK CAR.

092 GATX 225435 L WORTON MD NS 130 EASTMAN 2851220 T178 _____

LOADED TANK CAR.

093 UTLX 669739 L FREEDOM PA NS 128 VALVOLIN 2911791 T107 _____

LOADED TANK CAR.

094 NAHX 620163 L BETHLEHE PA LVRB 118 ECOPAX L 2821139 C214 _____

095 TTPX 081575 L SHARON PA NS 132 EDDIE KA 3312318 F253 _____

096 SHQX 004267 L MECHANIC PA NS 136 NESTLE P 2044110 C214 _____

"EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"

097 GATX 054892 L MILL HAL PA NS 126 AVERY DE 4914108 T107 _____

ENDORSED AS HAZARDOUS MAT

 * HAZARDOUS *
 * MATERIALS *

1 CAR
 1 CAR
 NA1993
 COMBUSTIBLE LIQUID,
 N.O.S.
 (2-ETHYLHEXYLACRYLATEINH-
 I)
 COMBUSTIBLE LIQUID
 PG III
 EMERGENCY CONTACT:
 CHEMTREC CONT: CCN2407
 8004249300
 HAZMAT STCC=4914108
 ERG GUIDE NO. 128

TO/CONSIGNEE:

AVERY DENNISON CORPORATION

FROM/SHIPPER:

BASF

MILL HALL PA TION FREEPORT TX
 COMB LIQUID > LOADED TANK MAY NOT BE NEXT TO SHIFTABLE
 LOAD.

COMB LIQUID > NO BUFFERS REQUIRED
 HM1 PIT GROUP 5 LOADED TANK CAR
 LOADED TANK CAR.

098 TBOX 639745 L LEWISTOW PA NS 140 FIRST QU 3842174 A606 _____

PLTF
 "EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"

099 TBOX 640016 L LEWISTOW PA NS 140 FIRST QU 3842174 A606 _____

PLTF
 "EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"

100 GATX 054899 L MILL HAL PA NS 126 AVERY DE 4912215 T107 _____

ENDORSED AS HAZARDOUS MAT

 1 CAR
 * HAZARDOUS *
 * MATERIALS *

 1 CAR
 UN2348
 BUTYL ACRYLATES,
 STABILIZED
 3//PG III
 EMERGENCY CONTACT:
 CHEMTREC CONT: CCN2407
 8004249300
 HAZMAT STCC=4912215
 ERG GUIDE NO. 129
 TO/CONSIGNEE: FROM/SHIPPER:
 AVERY DENNISON CORPORATION BASF
 MILL HALL PA TION FREEPORT TX
 CLASS 3 (FLAMMABLE LIQUID) >DANGEROUS<
 HM1 PIT GROUP 4 LOADED TANK CAR
 HM1 PIT GROUP 4 OTHER CAR

LOADED TANK CAR.

101 ROIX 058372 L SOUTH PL NJ NS 123 SILVER L 2821141 C214 _____

102 MULX 200058 L MECHANIC PA NS 134 NESTLE P 2044110 C114 _____

"EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"

103 SHPX 463835 L MUNCY (L PA NS 136 ADVANCED 2821163 C214 _____

"EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"

104 ELTX 007538 L MUNCY (L PA NS 136 ADVANCED 2821163 C214 _____

"EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"

105 CCBX 058366 L WEST HAZ PA NS 127 AMCOR FL 2821142 C214 _____

106 BRKX 066231 L EIGHTY F PA NS 128 PERFORMA 2821139 C214 _____

107 CITX 200199 L READING PA RBMN 130 MITSUBIS 2821142 C214 _____

108 CITX 200288 L FINDERNE NJ NS 122 EQUISTAR 2821142 C214 _____

109 GISX 001386 L LEOLA PA NS 137 OSTERMAN 2821163 C214 _____

ENG NS E04412 E "EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"
0000000 D127 NO WAYBILL
VERIFY LIGHT CAR PLACEMENT NEAR HEAD END LOCOMOTIVE CONSIST

110 GONX 320417 L MINGO JC OH NS 131 FEX GROU 4021125 G516 _____

111 GONX 310070 L MINGO JC OH NS 130 FEX GROU 4021125 G516 _____

112 NW 189995 L CANTON OH NS 136 TIMKENST 4021125 G515 _____

"EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"

113 NW 169645 L WHEATLAN PA NS 118 RIDG U R 3312331 E441 _____

114 NS 163615 L WHEATLAN PA NS 119 RIDG U R 3312331 E242 _____

115 NS 168788 L WHEATLAN PA NS 112 RIDG U R 3312331 E242 _____

116 TILX 101984 L REYBOLD DE NS 138 VEOLIA N 4930042 T054 _____

ENDORSED AS HAZARDOUS MAT

* HAZARDOUS *

* MATERIALS *

1 CAR 204923 LBS

UN1832

SULFURIC ACID, SPENT

8//PG II

RQ (SULFURIC ACID)

EMERGENCY CONTACT:

CCN223205

8004249300

HAZMAT STCC=4930042

ERG GUIDE NO. 137

TO/CONSIGNEE:

FROM/SHIPPER:

VEOLIA NORTH AMERICA REGENERATION PHILLIPS 66 CO

DELAWARE CITY DE EGENERATION ROXANA

IL

"EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"

CLASS 8 (CORROSIVE MATERIAL) >DANGEROUS<
 HM1 PIT GROUP 4 LOADED TANK CAR
 HM1 PIT GROUP 4 OTHER CAR
 LOADED TANK CAR.

117 GATX 035935 L REYBOLD DE NS 139 VEOLIA N 4930042 T054 _____

ENDORSED AS HAZARDOUS MAT

 * HAZARDOUS *
 * MATERIALS *

1 CAR 204348 LBS
 UN1832
 SULFURIC ACID, SPENT
 8//PG II
 RQ (SULFURIC ACID)
 EMERGENCY CONTACT:
 CCN223205
 8004249300
 HAZMAT STCC=4930042
 ERG GUIDE NO. 137

TO/CONSIGNEE: FROM/SHIPPER:
 VEOLIA NORTH AMERICA REGENERATION PHILLIPS 66 CO
 DELAWARE CITY DE EGENERATION ROXANA IL
 "EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"
 CLASS 8 (CORROSIVE MATERIAL) >DANGEROUS<
 HM1 PIT GROUP 4 LOADED TANK CAR
 HM1 PIT GROUP 4 OTHER CAR
 LOADED TANK CAR.

118 TILX 101958 L REYBOLD DE NS 138 VEOLIA N 4930042 T054 _____

ENDORSED AS HAZARDOUS MAT

 * HAZARDOUS *
 * MATERIALS *

1 CAR 204702 LBS
 UN1832
 SULFURIC ACID, SPENT
 8//PG II
 RQ (SULFURIC ACID)
 EMERGENCY CONTACT:
 CCN223205
 8004249300
 HAZMAT STCC=4930042
 ERG GUIDE NO. 137

TO/CONSIGNEE: FROM/SHIPPER:
 VEOLIA NORTH AMERICA REGENERATION PHILLIPS 66 CO
 DELAWARE CITY DE EGENERATION ROXANA IL
 "EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"
 CLASS 8 (CORROSIVE MATERIAL) >DANGEROUS<
 HM1 PIT GROUP 4 LOADED TANK CAR
 HM1 PIT GROUP 4 OTHER CAR
 LOADED TANK CAR.

119 GATX 035941 L REYBOLD DE NS 140 VEOLIA N 4930042 T054 _____

ENDORSED AS HAZARDOUS MAT

 * HAZARDOUS *
 * MATERIALS *

1 CAR 205114 LBS
 UN1832
 SULFURIC ACID, SPENT
 8//PG II
 RQ (SULFURIC ACID)
 EMERGENCY CONTACT:
 CCN223205
 8004249300
 HAZMAT STCC=4930042
 ERG GUIDE NO. 137

TO/CONSIGNEE: FROM/SHIPPER:
 VEOLIA NORTH AMERICA REGENERATION PHILLIPS 66 CO
 DELAWARE CITY DE EGENERATION ROXANA IL
 "EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"
 CLASS 8 (CORROSIVE MATERIAL) >DANGEROUS<
 HM1 PIT GROUP 4 LOADED TANK CAR
 HM1 PIT GROUP 4 OTHER CAR
 LOADED TANK CAR.

120 GATX 035930 L REYBOLD DE NS 140 VEOLIA N 4930042 T054 _____

_____ ENDORSED AS HAZARDOUS MAT

 * HAZARDOUS *
 * MATERIALS *

1 CAR 205704 LBS
 UN1832
 SULFURIC ACID, SPENT
 8//PG II
 RQ (SULFURIC ACID)
 EMERGENCY CONTACT:
 CCN223205
 8004249300
 HAZMAT STCC=4930042
 ERG GUIDE NO. 137

TO/CONSIGNEE: FROM/SHIPPER:
 VEOLIA NORTH AMERICA REGENERATION PHILLIPS 66 CO
 DELAWARE CITY DE EGENERATION ROXANA IL
 "EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"
 CLASS 8 (CORROSIVE MATERIAL) >DANGEROUS<
 HM1 PIT GROUP 4 LOADED TANK CAR
 HM1 PIT GROUP 4 OTHER CAR
 LOADED TANK CAR.

121 STSX 051519 L MORRISVI PA NS 139 PRIMARY 2046115 T105 _____

_____ "EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"
 LOADED TANK CAR.

122 STSX 003110 L MORRISVI PA NS 140 PRIMARY 2046115 T105 _____

_____ "EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"
 LOADED TANK CAR.

123 STSX 051308 L ORRVILLE OH NS 129 J M SMUC 2046115 T105 _____

LOADED TANK CAR.

124 STSX 061226 L ORRVILLE OH NS 129 J M SMUC 2046115 T105 _____

LOADED TANK CAR.

125 STSX 004000 L ORRVILLE OH NS 131 J M SMUC 2046115 T105 _____

LOADED TANK CAR.

126 STSX 004201 L ROHRERST PA NS 131 Y&S CAND 2046115 T105 _____

LOADED TANK CAR.

127 STSX 003082 L VERONA PA NS 139 AMERICAN 2046115 T105 _____

"EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"
LOADED TANK CAR.

128 TILX 170527 L MORRISVI PA NS 143 ADM CORN 2046115 T105 _____

LOADED TANK CAR.

129 ADMX 016442 L MORRISVI PA NS 131 ADM CORN 2046115 T104 _____

LOADED TANK CAR.

130 DMIX 191118 L MORRISVI PA NS 143 ADM CORN 2046115 T105 _____

LOADED TANK CAR.

131 ADMX 016192 L MORRISVI PA NS 131 ADM CORN 2046115 T104 _____

LOADED TANK CAR.

132 DMIX 191011 L MORRISVI PA NS 143 ADM CORN 2046115 T105 _____

LOADED TANK CAR.

133 VTGX 190085 L CHAPMAN PA NS 144 COCA-COL 2046115 T105 _____

LOADED TANK CAR.

134 GATX 073411 L CHAPMAN PA NS 143 COCA-COL 2046115 T105 _____

LOADED TANK CAR.

135 DMIX 190425 L CHAPMAN PA NS 143 COCA-COL 2046115 T105 _____

LOADED TANK CAR.

136 ADMX 015742 L CHAPMAN PA NS 131 COCA-COL 2046115 T104 _____

LOADED TANK CAR.

137 DMIX 190327 L CHAPMAN PA NS 143 COCA-COL 2046115 T105 _____

 LOADED TANK CAR.

138 TILX 170647 L CHAPMAN PA NS 143 COCA-COL 2046115 T105 _____

 LOADED TANK CAR.

139 ITFX 129067 L STRAWBER PA NS 130 NUTRIEN 2818170 C114 _____

140 SHPX 454520 L STRAWBER PA NS 129 NUTRIEN 2818170 C213 _____

141 CR 053534 E DYER PA NS 38 DYER QUA 0000000 M222 _____

142 CR 053318 E DYER PA NS 38 DYER QUA 0000000 M222 _____

143 CITX 701780 L CAMP HIL PA NS 88 PURINA A 2061930 C114 _____

144 NS 168703 L BRISTOL PA NS 105 ENGLERT 3312331 E242 _____

145 TILX 291356 L HAGERSTO MD CSXT 141 VENTURA 2092110 T108 _____

 "EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"
 LOADED TANK CAR.

146 TILX 650290 L KINGS CR MD NS 143 MOUNTAIR 2092314 C114 _____

 "EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"

147 CEFX 360330 L KINGS CR MD NS 143 MOUNTAIR 2092314 C114 _____

 "EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"

148 ADMX 064225 L KINGS CR MD NS 143 MOUNTAIR 2092314 C114 _____

 "EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"

149 ADMX 063057 L MT JOY PA NS 130 CARGILL 2046715 C114 _____

000 NS X76754 E 0000000 M970 NO WAYBILL

	LOADS	EMPTYES	NET TONS	LT WT	GROSS TONS	LENGTH	AXLES	BRAKES
TRAIN TOTALS:	141	009	12293	05684	17977	09309	0602	0150
AHEAD RADIO :	000	000	00000	00000	00000	00000	0000	0000

POWERED UNITS INCLUDED IN LENGTH TOTAL ONLY

Norfolk Southern Railway Company
 Notice of Rail Cars & Intermodal Units Containing Hazardous Materials

*

*

*

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*                                     IN                SET-OUT/PICK-
UP      *
* KEY TRAIN:                        TRAIN      _____
*
* LOADED POISON INHALATION HAZARD    0          _____
*
* LOADED OTHER HAZMAT CARS OR IM TANKS 17        _____
*
*
*
*
*
* EMPTY POISON INHALATION HAZARD    0          _____
*
*
*

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*

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#####
#                                     #
#          EEEEEEE   DDDDDD          #
#          E          D    D          #
#          EEEEEEE   D    D          #
#          E          D    D          #
#          EEEEEEE   DDDDDD          #
#                                     #
#####
# This consist contains cars with excessive #
# dimensions. Check for proper clearance.   #
#                                     #
#####

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***          HPT LOCOMOTIVE INSTRUCTION          ***
              Train ID 32NB101

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**

*****L-238. FUEL CONSERVATION PROCEDURES MUST BE FOLLOWED AT ALL
TIMES*****

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--
LOCATION          *                               * IF IN ROUTE WORK
PERFORMED

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 --
 CAR HANDLING REPORT FOR TRAIN 32NB101
 CONWAY PA

ON DUTY: _____ OFF DUTY: _____

Norfolk Southern Railway Company
 Notice of Rail Cars with other than 4 axles / 1 Operative Brake

Train#: 32NB101 Location: CONWAY PA 02/03/23 9:46 PM

The following rail cars with other than 4 axles / 1 operative brake are located in your train. When making axle and brake calculations for PTC, count all cars in your consist as 4 axles / 1 brake unless alternate values are listed below. Revision columns are to be used to make placement changes enroute.

INIT NUMBER	L E	TYPE	AXLES	BRAKES	TRAIN POSITION	REVISION 1st 2nd 3rd
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

150 CARS = 141 LDS 009 MTYS 17,977 TONS 9,309 FEET **CARS SET OUT**
 LNE INIT NUMBER CMDTY TON CLASS HAND CONSIGNE DEST/OFFJCT TIME TRACK LINE

ENG NS E04178 E 000 TOLEDO OH NO WAYBILL
 ENG NS E04224 L 216 TOLEDO OH NO WAYBILL

EXCESSIVE DIMENSIONS.

001 OCPX 070524 PLAST 127 A0000 J-M MANU STONY PO PA _____
 IF BAD ORDERED NOTIFY SHIPPER

002 GATX 009166 LIQUE 050 A0000 DANG PAULSBOR PAULSBOR NJ _____
 ENDORSED AS HAZARDOU

HM1 PIT GROUP 4 RESIDUE TANK CAR
 RESIDUE FLAMMABLE GAS >MAY NOT BE NEXT TO ENGINE OR OCC

CAB<

003 TTPX 081589 ISPIP 111 A0000 BI-STATE WHEATLAN PA _____

004 TTPX 805391 ISPIP 111 A0000 BI-STATE WHEATLAN PA _____

005 TTPX 080902 ISPIP 111 A0000 BI-STATE WHEATLAN PA _____

006 TTPX 806356 ISPIP 112 A0000 BI-STATE WHEATLAN PA _____

007	TTZX	864660	LUMBR	127	A0000	RIGIDPLY RICHLAND PA	_____	_____	_____
008	GACX	015324	WHFLR	141	A0000	ADM MILL CAMP HIL PA	_____	_____	_____
			"EXCESSIVE WEIGHT -			IS OKAY FOR CAR AND ROUTE"			
009	NS	245167	GLSWR	033	A0000	EWG GLAS BAY RIDG NY	_____	_____	_____
010	TBOX	641071	BEER	115	A0000	CROWN IM CARLISLE PA	_____	_____	_____
			PLTF						
011	CSOX	023642	LOIL	039	A0000	ERGON WE CONGO WV	_____	_____	_____
012	UTCX	046842	PLAST	033	A0000	BRASKEM MARCUS H PA	_____	_____	_____
			VERIFY LIGHT CAR PLACEMENT NEAR HEAD END LOCOMOTIVE CONSIST						
013	TILX	623413	PLAST	131	A0000	PACTIV L READING PA	_____	_____	_____
014	BRKX	062205	PLAST	131	A0000	PACTIV L READING PA	_____	_____	_____
015	GPLX	076170	PLAST	108	A0000	MITSUBIS READING PA	_____	_____	_____
016	GPLX	076158	PLAST	110	A0000	MITSUBIS READING PA	_____	_____	_____
017	GPLX	075450	PLAST	112	A0000	MITSUBIS READING PA	_____	_____	_____
018	MULX	053887	PLAST	131	A0000	PACTIV L READING PA	_____	_____	_____
019	TILX	624042	PLAST	131	A0000	PACTIV L READING PA	_____	_____	_____
020	BRKX	068611	PLAST	131	A0000	PACTIV L READING PA	_____	_____	_____
021	ARSX	004145	PLAST	131	A0000	PACTIV L READING PA	_____	_____	_____
022	BRKX	066738	PLAST	131	A0000	PACTIV L READING PA	_____	_____	_____
023	GPLX	075465	PLAST	105	A0000	MITSUBIS READING PA	_____	_____	_____
024	ECUX	860375	PLAST	115	A0000	NOVOLEX BRIDGEPO NJ	_____	_____	_____
025	UTLX	684543	FUELO	048	A0000	GORDON T BAYONNE NJ	_____	_____	_____
026	TILX	402025	VINYL	131	A0000	DANG OXY VINY PEDRICKT NJ	_____	_____	_____
			DIVISION 2.1 (FLAMMABLE GAS) >NO MORE THAN 2 CAR CUTS<						
			HM1 PIT GROUP 4 LOADED TANK CAR						
			HM1 PIT GROUP 4 OTHER CAR						
			IF BAD ORDERED NOTIFY SHIPPER						
			LOADED TANK CAR.						
027	OCPX	080235	VINYL	131	A0000	DANG OXY VINY PEDRICKT NJ	_____	_____	_____
			DIVISION 2.1 (FLAMMABLE GAS) >NO MORE THAN 2 CAR CUTS<						
			HM1 PIT GROUP 4 LOADED TANK CAR						
			HM1 PIT GROUP 4 OTHER CAR						
			IF BAD ORDERED NOTIFY SHIPPER						
			LOADED TANK CAR.						
028	OCPX	080179	VINYL	131	A0000	DANG OXY VINY PEDRICKT NJ	_____	_____	_____

DIVISION 2.1 (FLAMMABLE GAS) >NO MORE THAN 2 CAR CUTS<
 HM1 PIT GROUP 4 LOADED TANK CAR
 HM1 PIT GROUP 4 OTHER CAR
 IF BAD ORDERED NOTIFY SHIPPER
 LOADED TANK CAR.

029 GATX 095098 VINYL 131 A0000 DANG OXY VINY PEDRICKT NJ _____
 DIVISION 2.1 (FLAMMABLE GAS) >NO MORE THAN 2 CAR CUTS<
 HM1 PIT GROUP 4 LOADED TANK CAR
 HM1 PIT GROUP 4 OTHER CAR
 IF BAD ORDERED NOTIFY SHIPPER
 LOADED TANK CAR.

030 RACX 051629 GLYCL 131 A0000 LT LYONDELL BAYONNE NJ _____
 LOADED TANK CAR.

031 LYBX 005191 GLYCL 131 A0000 LT LYONDELL BAYONNE NJ _____
 LOADED TANK CAR.

032 RACX 051435 GLYCL 131 A0000 LT LYONDELL BAYONNE NJ _____
 LOADED TANK CAR.

033 UTLX 671772 GLYCL 127 CONWAP LT COIM USA THOROUGH NJ _____
 LOADED TANK CAR.

034 SHPX 211226 ETHYL 134 A0000 HAZM EQUISTAR BAYONNE NJ _____
 "EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"
 COMB LIQUID > LOADED TANK MAY NOT BE NEXT TO SHIFTABLE
 LOAD.
 COMB LIQUID > NO BUFFERS REQUIRED
 HM1 PIT GROUP 5 LOADED TANK CAR
 LOADED TANK CAR.

035 TILX 331319 WHFLR 138 A0000 CONAGRA MILTON U PA _____
 "EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"

036 DOWX 073168 ACRYL 140 A0000 HAZM AVERY DE MILL HAL PA _____
 ENDORSED AS HAZARDOU
 "EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"
 COMB LIQUID > LOADED TANK MAY NOT BE NEXT TO SHIFTABLE
 LOAD.
 COMB LIQUID > NO BUFFERS REQUIRED
 HM1 PIT GROUP 5 LOADED TANK CAR
 LOADED TANK CAR.

037 ROIX 057036 PLAST 128 A0000 J M EAGL STONY PO PA _____

038 NCUX 040057 PLAST 131 A0000 PRIME CO NAZARETH PA _____

039 UTLX 100055 LOIL 115 A0000 LT EXXONMOB GIBBSTOW NJ _____
 LOADED TANK CAR.

040 XOMX 110664 LOIL 115 A0000 LT EXXONMOB GIBBSTOW NJ _____
 LOADED TANK CAR.

041 UTLX 684798 LOIL 123 A0000 LT EXXONMOB GIBBSTOW NJ _____

LOADED TANK CAR.

042 UTLX 671310 LOIL 114 A0000 LT EXXONMOB GIBBSTOW NJ _____
LOADED TANK CAR.

043 CERX 030072 GLYCL 141 A0000 LT CARPENTE CHAPMAN PA _____
"EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"
LOADED TANK CAR.

044 SHPX 211106 GLYCL 131 A0000 LT LYONDELL BAYONNE NJ _____
LOADED TANK CAR.

045 NATX 231335 GLYCL 128 A0000 LT COIM USA THOROUGH NJ _____
LOADED TANK CAR.

046 UTLX 671913 GLYCL 127 A0000 LT COIM USA THOROUGH NJ _____
LOADED TANK CAR.

047 NATX 035844 BUTEN 127 A0000 DANG SYNTHOME WEST ELI PA _____
CASH PATRON-REMOVED
DIVISION 2.1 (FLAMMABLE GAS) >NO MORE THAN 2 CAR CUTS<
HM1 PIT GROUP 4 LOADED TANK CAR
HM1 PIT GROUP 4 OTHER CAR
LOADED TANK CAR.

048 UTLX 205907 ACRYL 124 A0000 DANG ARKEMA POTTSTOW PA _____
CLASS 3 (FLAMMABLE LIQUID) >DANGEROUS<
HM1 PIT GROUP 4 LOADED TANK CAR
HM1 PIT GROUP 4 OTHER CAR
LOADED TANK CAR.

049 UTLX 661296 FUELO 125 A0000 LT VALVOLIN FREEDOM PA _____
LOADED TANK CAR.

050 COCX 287059 CMPDS 125 A0000 LT SHELL OI NEWELL WV _____
LOADED TANK CAR.

051 ROIX 059396 PLAST 126 A0000 RIMTEC BURLINGT NJ _____

052 ROIX 057782 PLAST 131 A0000 J M EAGL STONY PO PA _____

053 OCPX 080370 VINYL 129 A0000 DANG OXY VINY PEDRICKT NJ _____
DIVISION 2.1 (FLAMMABLE GAS) >NO MORE THAN 2 CAR CUTS<
HM1 PIT GROUP 4 LOADED TANK CAR
HM1 PIT GROUP 4 OTHER CAR
IF BAD ORDERED NOTIFY SHIPPER
LOADED TANK CAR.

054 TBOX 640019 MFGNC 140 A0000 FIRST QU LEWISTOW PA _____
PLTF
"EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"

055 BKTY 152621 COILS 087 A0000 WELLSVIL WELLSVIL OH _____

056 LINX 007278 VEGF 132 A0000 LINEAGE CHAPMAN PA _____
PLTF

"EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"
 FUEL AND TEMPERATURE MUST BE CHECKED
 MECHANICAL REFRIGERATOR CAR.

057	DPRX	259013	BENZE	041	A0000	DANG DELAWARE REYBOLD	DE	_____	_____	_____
	ENDORSED AS HAZARDOU									
	CLASS 3 (FLAMMABLE LIQUID) >DANGEROUS<									
	HM1 PIT GROUP 4 RESIDUE TANK CAR									
058	DPRX	258671	BENZE	041	A0000	DANG DELAWARE REYBOLD	DE	_____	_____	_____
	ENDORSED AS HAZARDOU									
	CLASS 3 (FLAMMABLE LIQUID) >DANGEROUS<									
	HM1 PIT GROUP 4 RESIDUE TANK CAR									
059	XOMX	110236	PETRF	121	A0000	LT CRAYOLA UHLERS	PA	_____	_____	_____
	LOADED TANK CAR.									
060	ELTX	007458	PLAST	136	A0000	WASHINGTON EIGHTY F	PA	_____	_____	_____
	"EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"									
061	ELTX	003421	PLAST	131	A0000	CARLISLE CARLISLE	PA	_____	_____	_____
062	NDYX	892049	CMT	140	A0000	CTS CEME BALTIMOR	MD	_____	_____	_____
	"EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"									
063	TTGX	953815	AUTO	064	A0000	FORD MOT DOREMUS	NJ	_____	_____	_____
	85 FT OR LONGER RAILCAR									
	MULTI LEVEL - SYSTEM TIMETABLE INSTRUCTION SP-1 APPLIES									
064	TBOX	889334	BEER	126	A0000	CROWN IM CARLISLE	PA	_____	_____	_____
	PLTF									
065	NOKL	603412	BEER	126	A0000	CROWN IM CARLISLE	PA	_____	_____	_____
	PLTF									
066	NS	472751	BEER	101	A0000	CROWN IM CARLISLE	PA	_____	_____	_____
	PLTF									
067	TBOX	676291	BEER	103	A0000	CROWN IM CARLISLE	PA	_____	_____	_____
	PLTF									
068	TBOX	670331	BEER	116	A0000	CROWN IM CARLISLE	PA	_____	_____	_____
	PLTF									
069	TBOX	662599	BEER	123	A0000	CROWN IM CARLISLE	PA	_____	_____	_____
	PLTF									
070	KCS	112405	BEER	120	A0000	CROWN IM CARLISLE	PA	_____	_____	_____
	PLTF									
071	TBOX	666771	BEER	100	A0000	CROWN IM CARLISLE	PA	_____	_____	_____
	PLTF									
072	TBOX	664264	BEER	115	A0000	CROWN IM CARLISLE	PA	_____	_____	_____
	PLTF									

073	TBOX	642155	BEER	116	A0000	CROWN IM CARLISLE PA	_____	_____	_____
			PLTF						
074	TBOX	643155	BEER	120	A0000	CROWN IM CARLISLE PA	_____	_____	_____
			PLTF						
075	TBOX	630049	BEER	120	A0000	CROWN IM CARLISLE PA	_____	_____	_____
			PLTF						
076	BKTY	151113	BEER	094	A0000	CROWN IM SUFFERN NY	_____	_____	_____
077	TBOX	672287	LIQRS	100	A0000	CROWN IM CARLISLE PA	_____	_____	_____
			PLTF						
078	TBOX	643036	BEER	116	A0000	CROWN IM CARLISLE PA	_____	_____	_____
			PLTF						
079	TTZX	862546	LUMBR	111	A0000	DO IT BE BETHLEHE PA	_____	_____	_____
080	NAHX	320459	WHFLR	125	CONWAP	A ZEREGA FAIRLAWN NJ	_____	_____	_____
081	TTGX	696500	AUTO	069	A0000	GENERAL BALTIMOR MD	_____	_____	_____
			85 FT OR LONGER RAILCAR						
			MULTI LEVEL - SYSTEM TIMETABLE INSTRUCTION			SP-1 APPLIES			
082	TTGX	851756	AUTO	079	A0000	GENERAL BALTIMOR MD	_____	_____	_____
			85 FT OR LONGER RAILCAR						
			MULTI LEVEL - SYSTEM TIMETABLE INSTRUCTION			SP-1 APPLIES			
083	TTGX	981950	AUTO	074	A0000	GENERAL BALTIMOR MD	_____	_____	_____
			85 FT OR LONGER RAILCAR						
			MULTI LEVEL - SYSTEM TIMETABLE INSTRUCTION			SP-1 APPLIES			
084	LRS	137205	BEER	127	A0000	CROWN IM CARLISLE PA	_____	_____	_____
			PLTF						
085	NS	469567	BEER	118	A0000	CROWN IM CARLISLE PA	_____	_____	_____
086	TBOX	641883	BEER	116	A0000	CROWN IM CARLISLE PA	_____	_____	_____
			PLTF						
087	TBOX	675515	BEER	120	A0000	CROWN IM CARLISLE PA	_____	_____	_____
			PLTF						
088	LRS	002512	PPBRD	099	A0000	INTERNAT READING PA	_____	_____	_____
			IF BAD ORDERED NOTIFY SHIPPER						
089	TBOX	672773	PPBRD	138	A0000	KARCHNER READING PA	_____	_____	_____
			PLTF						
			"EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"						
			IF BAD ORDERED NOTIFY SHIPPER						
090	BKTY	152854	PPBRD	088	A0000	INTERNAT LANCASTE PA	_____	_____	_____
			IF BAD ORDERED NOTIFY SHIPPER						
091	UTLX	667639	ETHYL	130	A0000	HAZM EASTMAN WORTON MD	_____	_____	_____

LOAD. COMB LIQUID > LOADED TANK MAY NOT BE NEXT TO SHIFTABLE

COMB LIQUID > NO BUFFERS REQUIRED
HM1 PIT GROUP 5 LOADED TANK CAR
LOADED TANK CAR.

092 GATX 225435 PAINT 130 A0000 LT EASTMAN WORTON MD _____
LOADED TANK CAR.

093 UTLX 669739 FUELO 128 A0000 LT VALVOLIN FREEDOM PA _____
LOADED TANK CAR.

094 NAHX 620163 PLAST 118 A0000 ECOPAX L BETHLEHE PA _____

095 TTPX 081575 IRSTL 132 A0000 EDDIE KA SHARON PA _____

096 SHQX 004267 RICE 136 A0000 NESTLE P MECHANIC PA _____
"EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"

097 GATX 054892 ACRYL 126 A0000 HAZM AVERY DE MILL HAL PA _____
ENDORSED AS HAZARDOU

LOAD. COMB LIQUID > LOADED TANK MAY NOT BE NEXT TO SHIFTABLE

COMB LIQUID > NO BUFFERS REQUIRED
HM1 PIT GROUP 5 LOADED TANK CAR
LOADED TANK CAR.

098 TBOX 639745 MFGNC 140 A0000 FIRST QU LEWISTOW PA _____
PLTF
"EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"

099 TBOX 640016 MFGNC 140 A0000 FIRST QU LEWISTOW PA _____
PLTF
"EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"

100 GATX 054899 ACRYL 126 A0000 DANG AVERY DE MILL HAL PA _____
ENDORSED AS HAZARDOU
CLASS 3 (FLAMMABLE LIQUID) >DANGEROUS<
HM1 PIT GROUP 4 LOADED TANK CAR
HM1 PIT GROUP 4 OTHER CAR
LOADED TANK CAR.

101 ROIX 058372 PLAST 123 A0000 SILVER L SOUTH PL NJ _____

102 MULX 200058 RICE 134 A0000 NESTLE P MECHANIC PA _____
"EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"

103 SHPX 463835 PLAST 136 A0000 ADVANCED MUNCY (L PA _____
"EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"

104 ELTX 007538 PLAST 136 A0000 ADVANCED MUNCY (L PA _____
"EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"

105 CCBX 058366 PLAST 127 A0000 AMCOR FL WEST HAZ PA _____

106 BRKX 066231 PLAST 128 A0000 PERFORMA EIGHTY F PA _____

107 CITX 200199 PLAST 130 A0000 MITSUBIS READING PA _____

108 CITX 200288 PLAST 122 A0000 EQUISTAR FINDERNE NJ _____

109 GISX 001386 PLAST 137 A0000 OSTERMAN LEOLA PA _____
 "EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"
 ENG NS E04412 E 000 LEOLA PA NO WAYBILL
 VERIFY LIGHT CAR PLACEMENT NEAR HEAD END LOCOMOTIVE CONSIST

110 GONX 320417 ISSCR 131 A0000 FEX GROU MINGO JC OH _____

111 GONX 310070 ISSCR 130 A0000 FEX GROU MINGO JC OH _____

112 NW 189995 ISSCR 136 A0000 TIMKENST CANTON OH _____
 "EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"

113 NW 169645 IRSTL 118 A0000 RIDG U R WHEATLAN PA _____

114 NS 163615 IRSTL 119 A0000 RIDG U R WHEATLAN PA _____

115 NS 168788 IRSTL 112 A0000 RIDG U R WHEATLAN PA _____

116 TILX 101984 ACID, 138 A0000 DANG VEOLIA N REYBOLD DE _____
 ENDORSED AS HAZARDOU
 "EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"
 CLASS 8 (CORROSIVE MATERIAL) >DANGEROUS<
 HM1 PIT GROUP 4 LOADED TANK CAR
 HM1 PIT GROUP 4 OTHER CAR
 LOADED TANK CAR.

117 GATX 035935 ACID, 139 A0000 DANG VEOLIA N REYBOLD DE _____
 ENDORSED AS HAZARDOU
 "EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"
 CLASS 8 (CORROSIVE MATERIAL) >DANGEROUS<
 HM1 PIT GROUP 4 LOADED TANK CAR
 HM1 PIT GROUP 4 OTHER CAR
 LOADED TANK CAR.

118 TILX 101958 ACID, 138 A0000 DANG VEOLIA N REYBOLD DE _____
 ENDORSED AS HAZARDOU
 "EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"
 CLASS 8 (CORROSIVE MATERIAL) >DANGEROUS<
 HM1 PIT GROUP 4 LOADED TANK CAR
 HM1 PIT GROUP 4 OTHER CAR
 LOADED TANK CAR.

119 GATX 035941 ACID, 140 A0000 DANG VEOLIA N REYBOLD DE _____
 ENDORSED AS HAZARDOU
 "EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"
 CLASS 8 (CORROSIVE MATERIAL) >DANGEROUS<
 HM1 PIT GROUP 4 LOADED TANK CAR
 HM1 PIT GROUP 4 OTHER CAR
 LOADED TANK CAR.

120 GATX 035930 ACID, 140 A0000 DANG VEOLIA N REYBOLD DE _____

ENDORSED AS HAZARDOU

"EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"
 CLASS 8 (CORROSIVE MATERIAL) >DANGEROUS<
 HM1 PIT GROUP 4 LOADED TANK CAR
 HM1 PIT GROUP 4 OTHER CAR
 LOADED TANK CAR.

121	STX	051519	CRNSP	139	A0000	LT	PRIMARY MORRISVI PA	_____	_____	_____
							"EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"			
							LOADED TANK CAR.			
122	STX	003110	CRNSP	140	A0000	LT	PRIMARY MORRISVI PA	_____	_____	_____
							"EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"			
							LOADED TANK CAR.			
123	STX	051308	CRNSP	129	A0000	LT	J M SMUC ORRVILLE OH	_____	_____	_____
							LOADED TANK CAR.			
124	STX	061226	CRNSP	129	A0000	LT	J M SMUC ORRVILLE OH	_____	_____	_____
							LOADED TANK CAR.			
125	STX	004000	CRNSP	131	A0000	LT	J M SMUC ORRVILLE OH	_____	_____	_____
							LOADED TANK CAR.			
126	STX	004201	CRNSP	131	A0000	LT	Y&S CAND ROHRERST PA	_____	_____	_____
							LOADED TANK CAR.			
127	STX	003082	CRNSP	139	A0000	LT	AMERICAN VERONA PA	_____	_____	_____
							"EXCESSIVE WEIGHT - IS OKAY FOR CAR AND ROUTE"			
							LOADED TANK CAR.			
128	TILX	170527	CRNSP	143	A0000	LT	ADM CORN MORRISVI PA	_____	_____	_____
							LOADED TANK CAR.			
129	ADMX	016442	CRNSP	131	A0000	LT	ADM CORN MORRISVI PA	_____	_____	_____
							LOADED TANK CAR.			
130	DMIX	191118	CRNSP	143	A0000	LT	ADM CORN MORRISVI PA	_____	_____	_____
							LOADED TANK CAR.			
131	ADMX	016192	CRNSP	131	A0000	LT	ADM CORN MORRISVI PA	_____	_____	_____
							LOADED TANK CAR.			
132	DMIX	191011	CRNSP	143	A0000	LT	ADM CORN MORRISVI PA	_____	_____	_____
							LOADED TANK CAR.			
133	VTGX	190085	CRNSP	144	A0000	LT	COCA-COL CHAPMAN PA	_____	_____	_____
							LOADED TANK CAR.			
134	GATX	073411	CRNSP	143	A0000	LT	COCA-COL CHAPMAN PA	_____	_____	_____
							LOADED TANK CAR.			
135	DMIX	190425	CRNSP	143	A0000	LT	COCA-COL CHAPMAN PA	_____	_____	_____
							LOADED TANK CAR.			
136	ADMX	015742	CRNSP	131	A0000	LT	COCA-COL CHAPMAN PA	_____	_____	_____

LOADED TANK CAR.

137	DMIX	190327	CRNSP	143	A0000	LT	COCA-COL	CHAPMAN	PA	_____	_____	_____
138	TILX	170647	CRNSP	143	A0000	LT	COCA-COL	CHAPMAN	PA	_____	_____	_____
139	ITFX	129067	UREA	130	A0000		NUTRIEN	STRAWBER	PA	_____	_____	_____
140	SHPX	454520	UREA	129	A0000		NUTRIEN	STRAWBER	PA	_____	_____	_____
141	CR	053534		038	A0000		DYER	QUA DYER	PA	_____	_____	_____
142	CR	053318		038	A0000		DYER	QUA DYER	PA	_____	_____	_____
143	CITX	701780	FEEDI	088	A0000		PURINA	A CAMP HIL	PA	_____	_____	_____
144	NS	168703	IRSTL	105	A0000		ENGLERT	BRISTOL	PA	_____	_____	_____
145	TILX	291356	SBOIL	141	A0000	LT	VENTURA	HAGERSTO	MD	_____	_____	_____
							"EXCESSIVE WEIGHT -	IS OKAY FOR CAR AND ROUTE"				
							LOADED TANK CAR.					
146	TILX	650290	SBML	143	A0000		MOUNTAIR	KINGS CR	MD	_____	_____	_____
							"EXCESSIVE WEIGHT -	IS OKAY FOR CAR AND ROUTE"				
147	CEFX	360330	SBML	143	A0000		MOUNTAIR	KINGS CR	MD	_____	_____	_____
							"EXCESSIVE WEIGHT -	IS OKAY FOR CAR AND ROUTE"				
148	ADMX	064225	SBML	143	A0000		MOUNTAIR	KINGS CR	MD	_____	_____	_____
							"EXCESSIVE WEIGHT -	IS OKAY FOR CAR AND ROUTE"				
149	ADMX	063057	GRNBP	130	A0000		CARGILL	MT JOY	PA	_____	_____	_____
000	NS	X76754	E	000								

				NET		GROSS			
	LOADS	EMPTYIES	TONS	LT WT	TONS	LENGTH	AXLES	BRAKES	
TRAIN TOTALS:	141	009	12293	05684	17977	09309	0602	0150	
AHEAD RADIO :	000	000	00000	00000	00000	00000	0000	0000	

POWERED UNITS INCLUDED IN LENGTH TOTAL ONLY

CONDUCTOR'S REPORT OF CARS PICKED UP AND/OR SWITCHED ON LINE OF ROAD:

CONDUCTOR NAME: _____ TRAIN ID: _____

FROM	FROM					TO	TO		
TRACK	LOCATION	DATE/TIME	NO CARS	HEAD CAR	REAR CAR	-	TRACK	LOCATION	DATE/TIME

_____	_____	_____	_____	_____	_____	-	_____	_____	_____
_____	_____	_____	_____	_____	_____	-	_____	_____	_____
_____	_____	_____	_____	_____	_____	-	_____	_____	_____
_____	_____	_____	_____	_____	_____	-	_____	_____	_____

[illegible]

CONDUCTOR: THIS REPORT MUST BE TURNED IN AT END OF TRIP ALONG WITH WHEEL REPORT

NOTE: CARS ON WHEEL REPORT SET OUT ON LINE OF ROAD
MUST BE RECORDED ON APPROPRIATE LINE(S).

HAZARDOUS MATERIAL RADIO WAYBILL

NOTE: Print legibly

* HAZARDOUS MATERIAL *

```
1. Train
Number
```

```
2. Number of Cars from Head  
End_____ (Update the position-in-train
```

documents)

3. Car Initial &
No.

4. 1/Car Load or Residue Last Contained (Circle One)

*** DESCRIPTION OF ARTICLES ***

5. Number of
Packages/Car _____

6. Proper Shipping
Name _____

7. Technical
Name (_____)

8. Primary Hazard
Class _____

Secondary Hazard
Class _____

9. UN/NA Id.
No. _____

10. Packing Group (PG): 1 11 111 (Circle
One)

11. Reportable
Quantity (RQ): (_____)

*** ADDITIONAL INFORMATION ***

12. Poison/Toxic-Inhalation Hazard:
Zone A Zone B Zone C Zone D (Circle
One)

13. Marine
Pollutant (_____)

14. DOT Special Permit
Number(s): _____

15. Additional
Information _____

16. ERAP Plan
No.: _____
(Canadian Shipments Only)

17. ERAP Telephone No.: (_____) _____ -

(Canadian Shipments Only)
18. Emergency Contact (_____) _____ -

(_____) _____ -

Completed:
Date: _____ / _____ / _____ Time: _____ : _____
AM MO DAY YR
PM

END OF TRIP

TRAIN: _____ OF _____ - _____

ORIGIN STATION: _____ INTERMEDIATE STATION: _____ FINAL STATION: _____

RUN MILES: _____

DEPARTURE TIME: _____ ARRIVED YARD BOARD - DATE: _____ TIME: _____

ENTERED FINAL TRACK: _____ STOPPED FINAL TRACK: _____

CARS HANDLED: _____ MAX CARS: _____

ENGINES: _____

COVERED SERVICE REPORTING

PTO	<---ON DUTY--->				<---RELIEVED--->			<---RELEASE--->		
HHMM	TRAIN	LOC	DATE	TIME	LOC	DATE	TIME	LOC	DATE	TIME
01	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
02	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
03	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____

OTHER ACTIVITY REPORTING

PTO	ACTV	MODE	<---START--->			<---END--->		
HHMM	CD	TRAN	LOC	DATE	TIME	LOC	DATE	TIME
01	_____	_____	_____	_____	_____	_____	_____	_____
02	_____	_____	_____	_____	_____	_____	_____	_____
03	_____	_____	_____	_____	_____	_____	_____	_____

MILEPOST	HHMM	CODE	UNITS	ADDITIONAL REMARKS
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

APPENDIX C - Aerial Photo of Derailed Rail Cars

